ADVERTISER'S INDEX
PAGE 19

The OIL WEEKLY

A Journal for
Oil and Gas Producers and Field Men

HOUSTON
LOS ANGELES

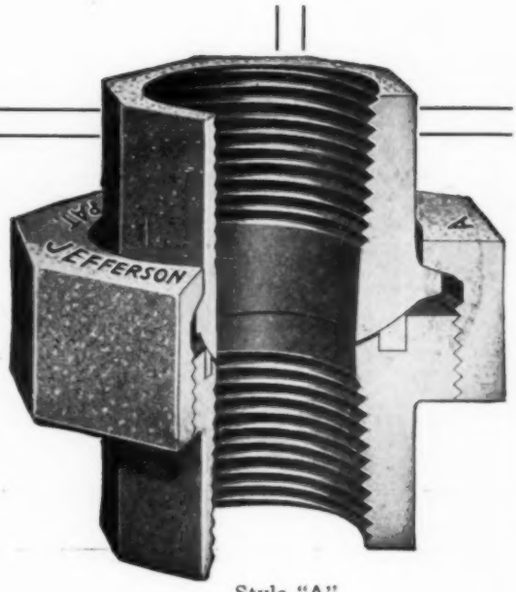
NEW YORK
FT. WORTH

TULSA
CHICAGO

VOL. 36. No. 3 JANUARY 9, 1925 10 Cents Per Copy

Jefferson

Perfected Unions and Flanges

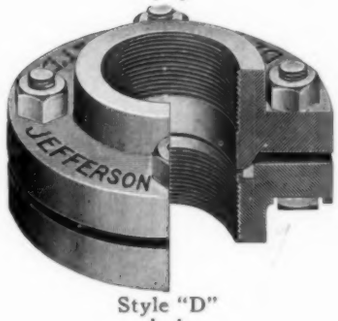


Style "A"

JEFFERSON Unions and Flanges are the highly perfected product of a company which has specialized in the making of these fittings for many years.

All JEFFERSON Unions and Flanges are made of high grade, air-refined malleable iron, carefully inspected and properly tested. Each fitting possesses a ground-ball, brass-to-iron joint which cannot corrode, no gasket being required.

The brass seat ring is located in a recess away from the runway of the fitting, which prevents the ring from being dislodged no matter how far the pipe may be screwed into the fitting.



Style "D"

CONTINENTAL carries a full line of Jeffersons in all sizes. Ask to see them and let us explain why you should "Jeffersonize."

"If CONTINENTAL Sells It, There is No Better"

Style "B"

THE CONTINENTAL SUPPLY CO.

General Offices: St. Louis

Export Office: 2 Rector St., New York

London Office: Finsbury Court, Finsbury Pavement, London E. C. 2, England

MORE THAN 70 STORES IN THE OIL COUNTRY

CONTINENTAL

THE OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.

It stands to reason, doesn't it? Fewer parts—fewer chances for grief. STRONGER parts—even more remote chances for grief. This principle, together with sound improvements in design, is the secret of the amazing service that Gaso Pumps are giving wherever they are introduced. It explains why Gasos have risen from obscurity to leadership in less than 10 years.

In justice to yourself, investigate this line before placing your next order. A 64-page catalogue is yours for the asking.

GASO PUMP & BURNER MFG. CO.
Tulsa, Okla.

At Left
The biggest and one of the most popular of all Gaso Pumps—12" discharge.

No. 601
Walking Beam Pump For Oil or Water. Designed for 450 to 600-lb. pressures. Practically no gasket surface, valve pots being cast integral with body.

GASO PUMPS
for every oil industry need

You Can't Fool 'Em

Any oil field worker who has had any experience with an IRON KING pulling machine can't see any other. WHY? Because he knows that an IRON KING is easily operated, is strong and durable, quick in action and dependable at all times. He knows they are built right and will do the work at all stages of the game.

Ready for the road

Balances easy

It's No Parlor Ornament

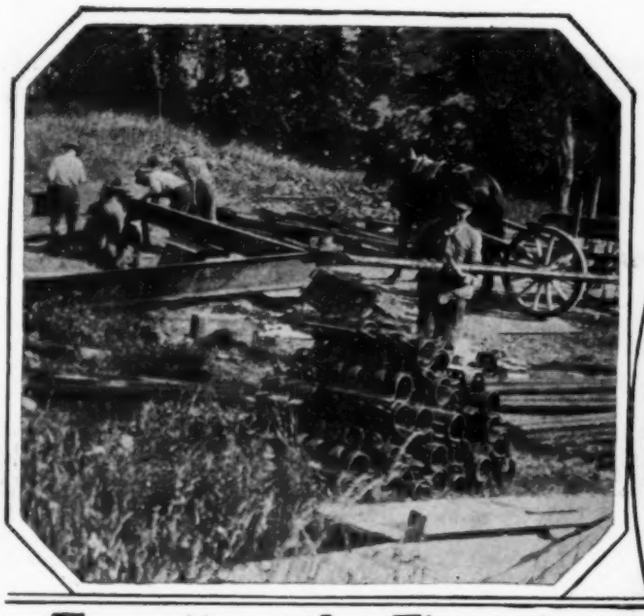
But a good, strong, durable machine that does its work as easily and quickly on the deep ones as it does on those in the shallow pay.

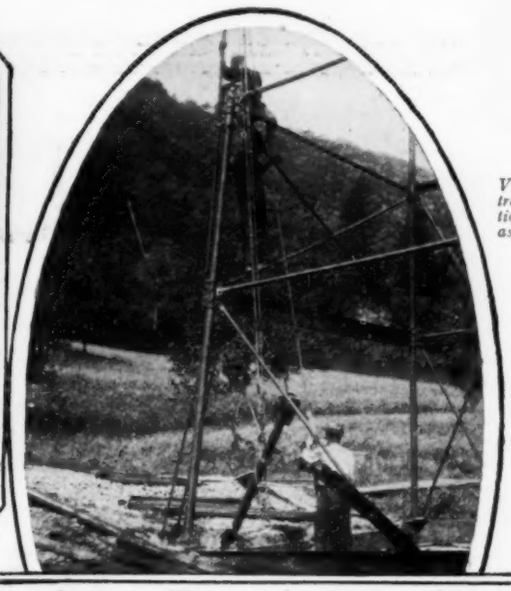
If your oil well supply store will not get you an IRON KING write us direct. Shall we send you a catalog?

Iron King Manufacturing Co.
Bradner — Ohio

He's putting it up

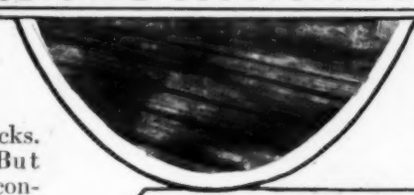
All set



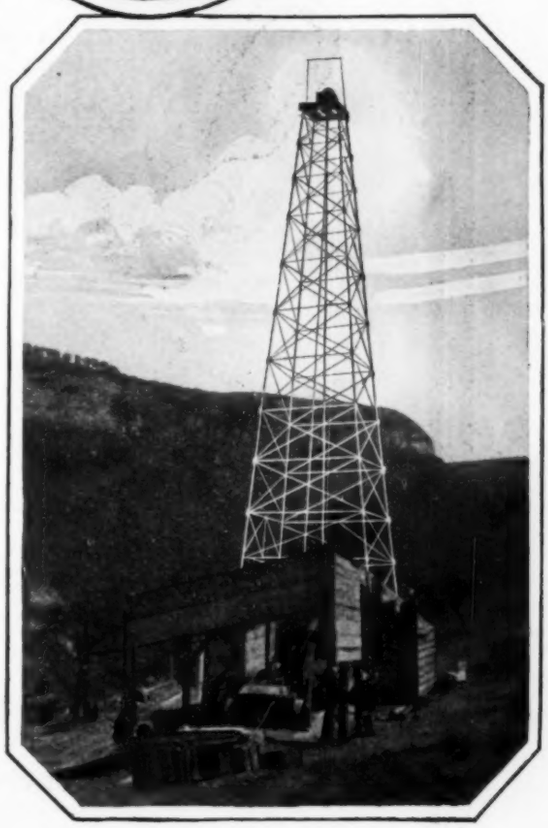


View No. 1 (extreme left) Foundation members being assembled.

Erecting the First American Derrick in France



View No. 2 (above) Shows methods used in erection, making a tripod of the lower braces for hoisting and putting the heavy 27-lb. leg sections in place. Native labor used.



Wildcatting Again!

DIFFERENT countries, different styles—even in derricks. All have their preferences and peculiar conditions. But Moore derricks go everywhere, adapt themselves to every condition of service and climate, from the frozen North to the blazing tropics. Moore derricks are truly universal, because of their superior strength and safety; their fireproof, windproof, insect-proof, and decay-proof construction; and their application to every drilling job, be it light or heavy.

Moore derricks, within the last two or three years, were used for the first wild cat drilling in England, Spain and France. One of them brought in England's only producing well.

TOMMY BANNON, who has pioneered in both Spain and France with Moore derricks, now has this to say: "For deep foreign wild cat work, I consider the Moore derrick unequalled on account of its great strength and proven safety in every emergency."

Catalog on Request

LEE C. MOORE & COMPANY, Inc., Pittsburgh, Pa.

ESTABLISHED 1907

CASPER, WYO. Midwest Building
DALLAS, TEXAS Magnolia Building
TULSA, OKLA. Atlas Life Building
SHREVEPORT, LA. 824 Prospect Avenue
PARKERSBURG, W. VA.—Union Trust Building

California Representatives—**BUCK & STODDARD**
SAN FRANCISCO—485 California Street
LOS ANGELES—3354 E. Slauson Avenue; Box 720 Arcade Station

MOORE TUBULAR STEEL DERRICKS

"OILWELL" ESTD. 1862. C O TRADE MARK. (REGISTERED)

PUMPING

HERCULES

ELEVATOR—FAIR'S PATENT

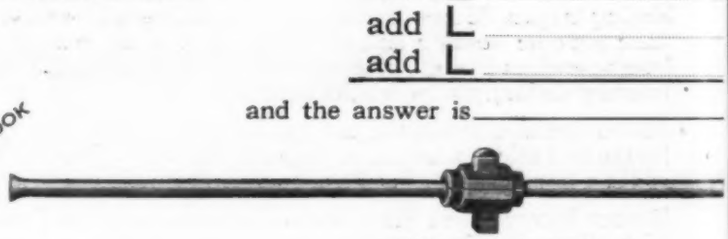
SIMPLE

FROM 62 YEARS OF

O .....
add I .....
add L .....
add W .....
add E .....
add L .....
add L .....

and the answer is .....

BALL BEARING SUCKER ROD HOOK



IRON ROD CLAMP

IMPERIAL

To facilitate service and to meet the demand for
to the buildings and machinery equipment of our

For Complete, Efficient, and Dependable

OIL WELL

WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

"OILWELL" ESTD. 1862. C O TRADE MARK. (REGISTERED)

"OILWELL" ESTD. 1862. C O TRADE MARK. (REGISTERED)

EQUIPMENT

SUCKER ROD

ADDITION

ACCUMULATIVE EXPERIENCE

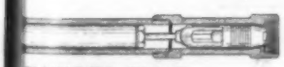
Oldest and largest manufacturers of oil field equipment.
Ingenuity of construction and engineering skill.
Long Service.
Will meet every requirement of the user.
Efficient workmanship.
Less replacements which result in
Lowering of your equipment costs.

SUCKER ROD ELEVATOR

"OILWELL" PUMPING EQUIPMENT

IMPERIAL STUFFING BOX

PULL ROD



PLUNGER PUMP

"OILWELL" Rods, recent additions have been made Rod Department at Imperial Works, Oil City, Pa.

Service, use "OILWELL" Pumping Equipment.

SUPPLY CO.

BRANCH STORES IN ALL OIL FIELDS

"OILWELL" ESTD. 1862. C O TRADE MARK. (REGISTERED)

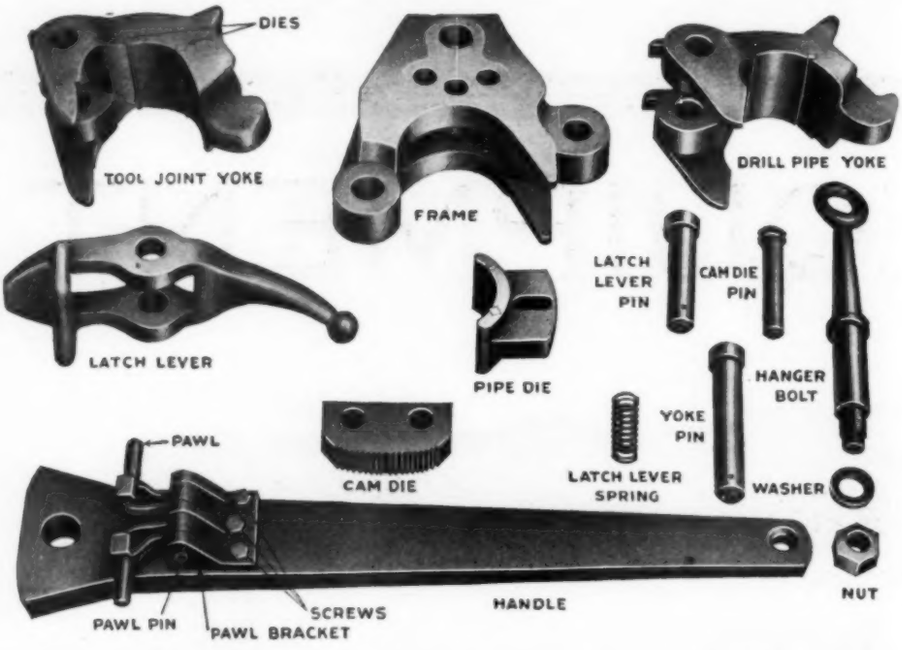
Say you saw it in The Oil Weekly

UIBERSON

THE GUIBERSON TOOL JOINT TONG

Open

Closed



FEW, STURDY PARTS

All Interchangeable

The pins and other small parts of the GUIBERSON Tong are made of high grade steel, carefully machined, hardened and heat treated in our own plant under the most scientific conditions.

The large parts are few and rugged. Yet the tong is not heavy and unmanageable. No Warping ever occurs, hence the tong always latches, never fails to remain latched, and never springs even under the most severe strains.

A stab takes hold—a pressure lets go—it never slips—never breaks—is SAFE.

"Better Be Safe Than Sorry"

The Guiberson Corporation

Box 1106, DALLAS, TEXAS

OKLAHOMA BRANCH: 402 W. First St., Tulsa

CALIFORNIA BRANCH: 1737 E. 7th St., Los Angeles

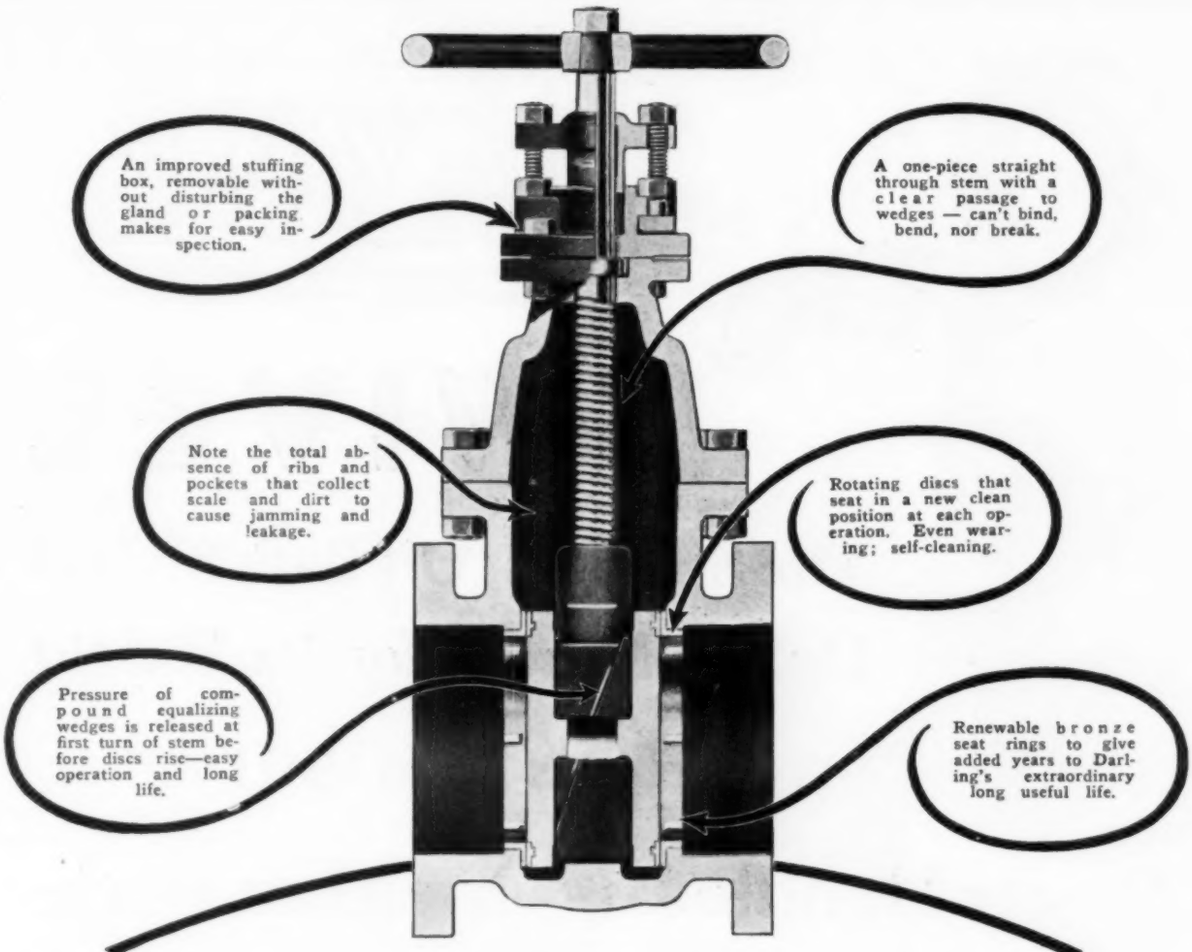
318 First Nat'l Bank Bldg., Houston

506 Trust Building Newark, O.

GUIBERSON

BETTER BE SAFE THAN SORRY

Say you saw it in The Oil Weekly


An improved stuffing box, removable without disturbing the gland or packing makes for easy inspection.
A one-piece straight through stem with a clear passage to wedges — can't bind, bend, nor break.
Note the total absence of ribs and pockets that collect scale and dirt to cause jamming and leakage.
Rotating discs that seat in a new clean position at each operation. Even wearing; self-cleaning.
Pressure of compound equalizing wedges is released at first turn of stem before discs rise—easy operation and long life.
Renewable bronze seat rings to give added years to Darling's extraordinary long useful life.

All You Want in a Valve is in a Darling

Long life, easy operation, accessibility, quick repair, low ultimate cost—you get them all when you equip with Darling Valves. These qualities are not vain promises of the manufacturer, but the natural advantages of Darling's design and construction.

Study the important points of Darling Valves as pictured above and see if they don't tie up with your idea of how a valve for oil field work should be made. Most Old Timers have shown their approval of this construction by insisting on Darlings only.

DARLING VALVE & MANUFACTURING COMPANY

WILLIAMSPORT, PA.

New York Chicago Oklahoma City Houston

MID-CONTINENT DISTRIBUTORS

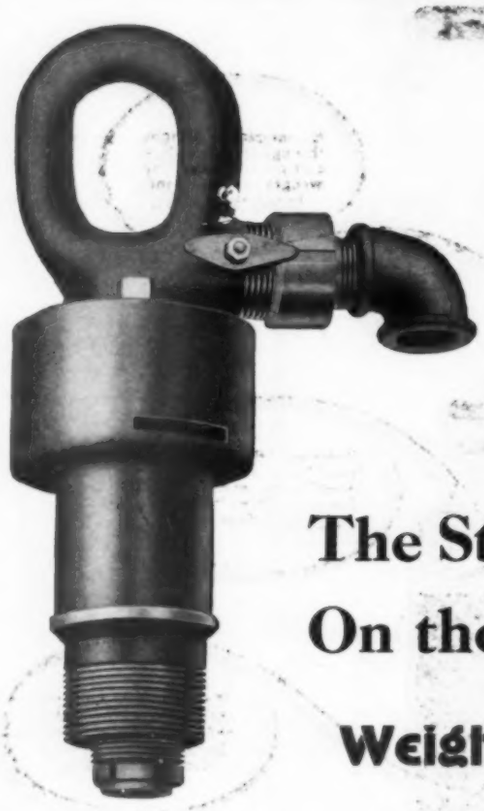
Frick-Reid Supply Company
Petroleum Supply Company
International Supply Company
Atlas Supply Company

CALIFORNIA DISTRIBUTOR

Petroleum Equipment Company, Los Angeles

DARLING GATE VALVES

Say you saw it in The Oil Weekly



THE LAYNE

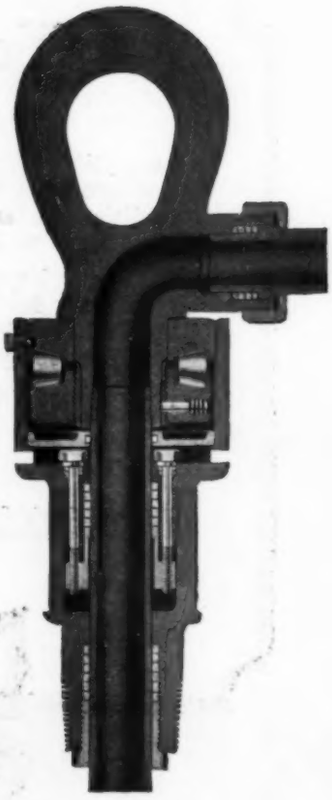
PATENT

SWIVEL

The Strongest Oil Bath Swivel On the Market for Its Weight

Weighs Less Than 150 Pounds

Easily Handled by One Man Without Aid of a Cat Line



No loose pail to swing in way or come unhooked while handling.

Specially designed eye, large enough to accommodate the largest C link.

The only swivel made having hose swivel connection so that hose will never become twisted while under pressure.

All parts interchangeable and easy of access.

LAYNE & BOWLER Co.

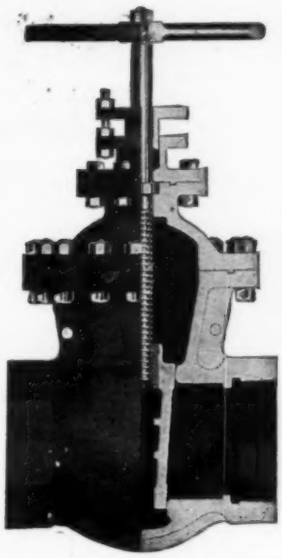
HOUSTON, TEXAS

Manufacturers of

THE LAYNE **Screens and Packers**

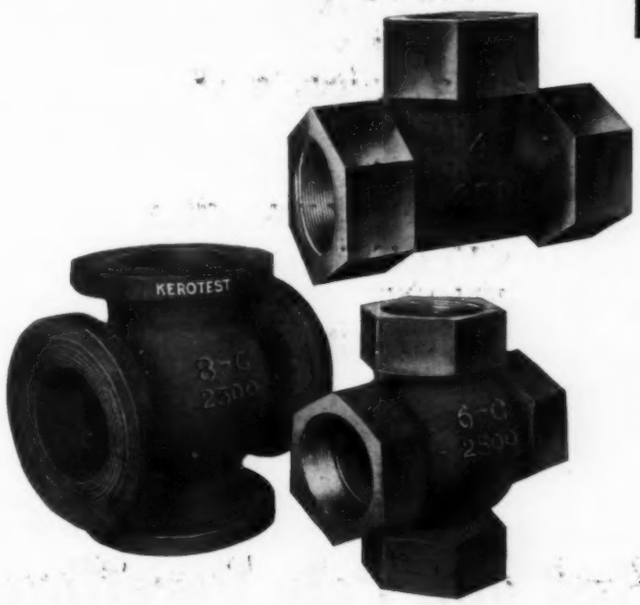
PLAY SAFE!

And Use KEROTEST Valves and Fittings.



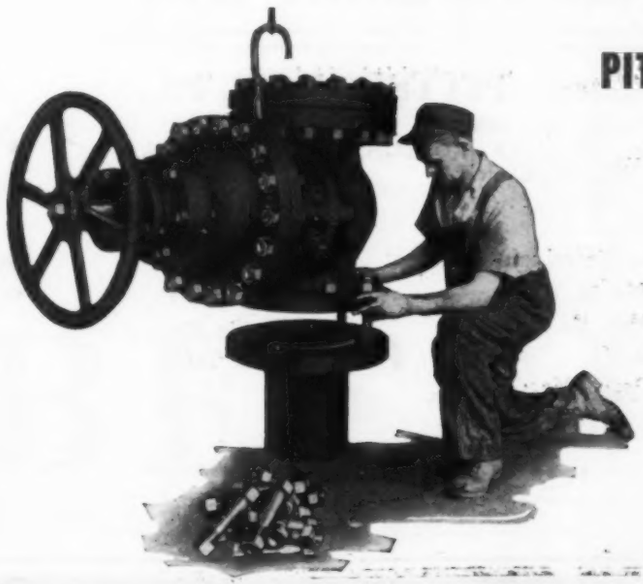
Better yet—eliminate the element of chance and luck where your heavy duty valves are concerned.

KEROTEST Valves are of the wedge-gate type which insures full opening and positive closing as well as perfect freedom for passage of the swab.



Every KEROTEST Valve is kerosene tested under high pressure, before shipment, disinterested inspectors carefully scrutinize every phase of manufacture.

Old Lady Luck helps only the foresighted. Leading oil field operators regard KEROTEST Valves and Fittings as part of their standard equipment. Let us tell you the story.



PITTSBURGH REINFORCED BRAZING AND MACHINE CO.

PITTSBURGH PENNA.

Carried in stock and sold by

GRINNELL COMPANY OF THE PACIFIC
Los Angeles San Francisco

NORVELL-WILDER HARDWARE COMPANY
Houston Beaumont Shreveport

OIL WELL SUPPLY COMPANY
Oklahoma Kansas Colorado Wyoming

Export Distributors

OIL WELL SUPPLY COMPANY
Pittsburgh New York Tampico London

KEROTEST

Gulf Refining Company

OKLAHOMA
TEXAS
LOUISIANA

Refiners of PETROLEUM

GASOLINE
REFINED OIL
NAPHTHA
GAS OILS
PARAFFINE WAX
ASPHALT
FUEL OIL
LUBRICATING OILS
CYLINDER
ENGINE
CORDAGE

Red and Pale Paraffine Oils

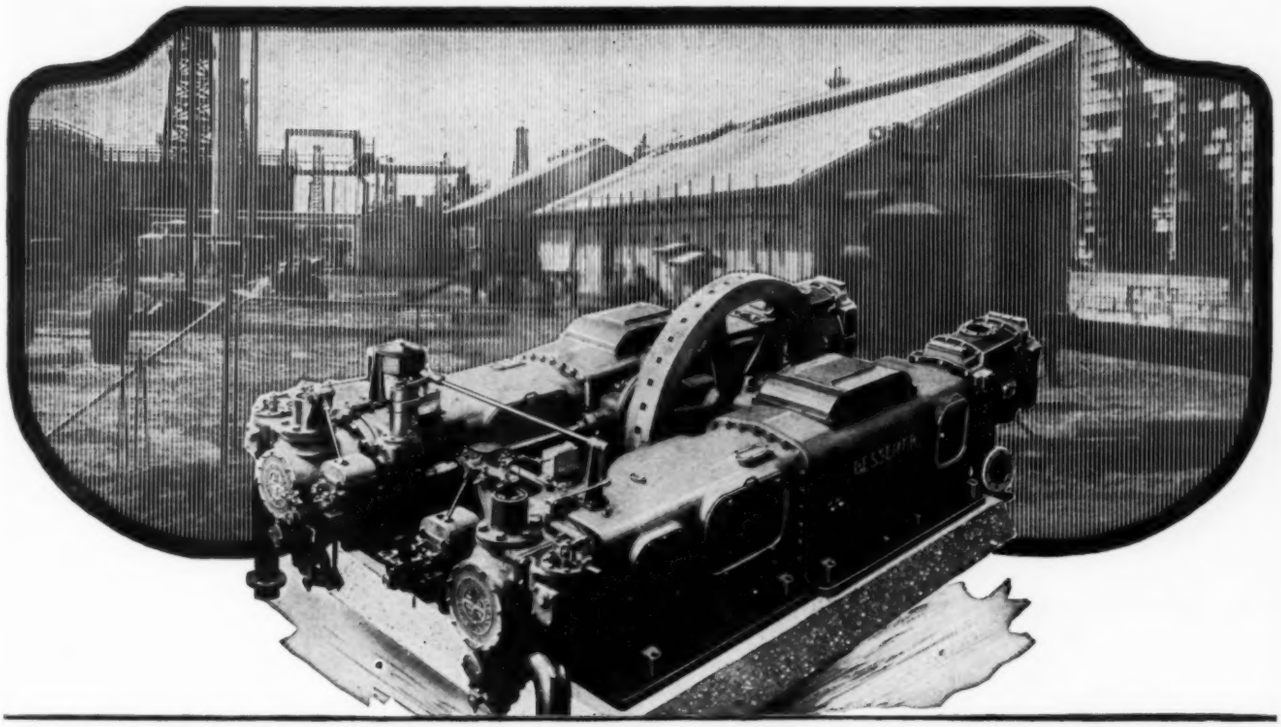
General Sales Offices: PITTSBURGH, PA.

District Sales Offices:
NEW YORK, HOUSTON, ATLANTA, BOSTON, NEW ORLEANS
PHILADELPHIA

Beverly, Mass.
Gibson's Point, Pa.
Port Tampa, Fla.
Port Arthur, Texas

Ocean Terminals
Bayonne, N. J.
Savannah, Ga.
Gretna, La.
Magazine Point (Mobile), Ala.

Providence, R. I.
Jacksonville, Fla.
Galveston, Texas



A Complete Range—each an Outstanding Leader

From the 15 H.P. Oil Field Gas Engine to the 1000 H.P. Diesel for pipe line work there is a Bessemer power unit perfected to meet *every* oil field power need.

Bessemer has developed and perfected oil field power equipment of every type to serve the longest, the most economically and with the lowest upkeep cost. The complete Bessemer line includes two-cycle and four-cycle engines, full Diesel, semi Diesel and gas burning engines, direct and belt driven compressors, pumps and roller pumping powers—and the horsepower range is from 15 H. P. to 1000 H. P.

Whatever unit may be called for by your particular requirements you can secure it Bessemer-built, backed by unequalled Bessemer service and proven the best by the hardest field service in all producing areas. Standardizing on Bessemer equipment is a far-sighted precaution.

THE BESSEMER GAS ENGINE COMPANY
62 York Street ⁘ ⁘ ⁘ Grove City, Pa.

BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS VACUUM PUMPS – ROLLER PUMPING POWERS

Say you saw it in The Oil Weekly

When Teddy Took San Juan Hill

Jones Sucker Rods were standard with oil men—and today, as then, Jones Rods lead the world in permanent, dependable quality.

The new forged End Rods—the Jones Giant and Jones Perfect, have been pronounced, after exhaustive comparative tests, to be the strongest, best Sucker Rods ever produced.

Get all the facts—know why Jones Rods are better—let us show you where their use may save you many days of wearisome, costly delays and many dollars in added expense.

Catalogue on Request.

The S. M. Jones Company

Toledo Ohio

Jones forged-end Sucker Rods

Say you saw it in The Oil Weekly

Quality
You Can Depend On

The efficiency of your operating equipment depends in as great a measure on the character and quality of the lubricants used, as it does on the type of the equipment itself and the skill of the operating personnel.

Humble Lubricants are specially refined so as to maintain the right lubricating body on bearings which operate under high speeds, as well as on those which carry heavy loads.

Humble Oils retain the proper viscosity and hold their fluid film at the operating temperatures produced by high speeds, and they have sufficient "oiliness" to leave a semi-plastic, adsorbed film which protects the bearing surfaces from abrasion during periods of partial lubrication, especially bearings like those of line shafts, countershafts and machine tools, which are started and stopped frequently and are often subjected to peak loads.

HUMBLE OIL & REFINING CO. HUMBLE OILS HOUSTON, TEXAS

This "oiliness" quality of Humble Oils, and their ability to hold an adsorbed film, during periods of partial lubrication, protect against abrasion, overheating, and bearing failures.

There is a Humble Oil which is specially prepared for every bearing need, whether in your plant, in your trucks, or in your automobile.

Write us for samples and prices

Humble Oil & Refining Co.
HOUSTON, TEXAS

Producers ~ Pipe Lines ~ Refiners ~ Marketers

REPUBLIC

DISTRICT
*HEADQUARTERS
and
†STORES
at:—

* HOUSTON, TEXAS
†Corsicana, Texas (Mildred)
*SHREVEPORT, LA.
†El Dorado, Ark.
†Smackover, Ark.
* WICHITA FALLS TEXAS
†Graham, Texas
†Breckenridge, Texas
†Electra, Texas
†Burkburnett, Texas
†Wilson, Okla.
†Duncan, Okla.
*TULSA, OKLAHOMA
†Tonkawa, Okla.
†Yale, Okla.
†Shidler, Okla.
†Beggs, Okla.
†Slick, Okla.
†Bristow, Okla.
†Wewoka, Okla.
†Hominy, Okla.
†Okemah, Okla.

In Stock "Always"

Republic Iron & Steel Co.'s Tubing, Casing, Drive and Line Pipe.

Standard Seamless Tube Co.'s Seamless Upset Rotary Drill Pipe.

American Well & Prospecting Co.'s "Gumbo Buster" Rotary Equipment.

Jones' Acme Sucker Rods.

American Steel & Wire Co.'s and Broderick & Bascom's Wire Rope.

Hughes Tool Co.'s Hughes Rock Bits, Hughes Disc Bits, and Hughes "Acme" Tool Joints.

Bovaird & Seyfang, and McNamar Oil Field Boilers.

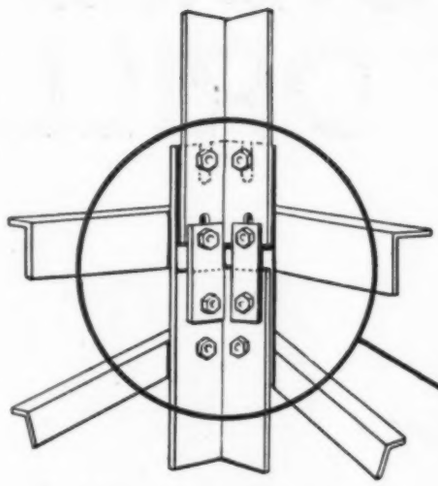
Jones' Acme Gas Engines.

Republic Supply Co.

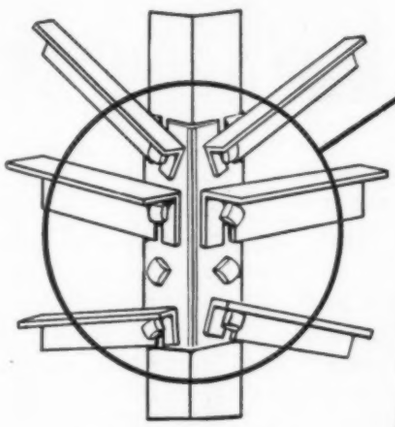
SUPPLIES FOR THE OIL FIELD

PARKERSBURG STEEL DERRICKS

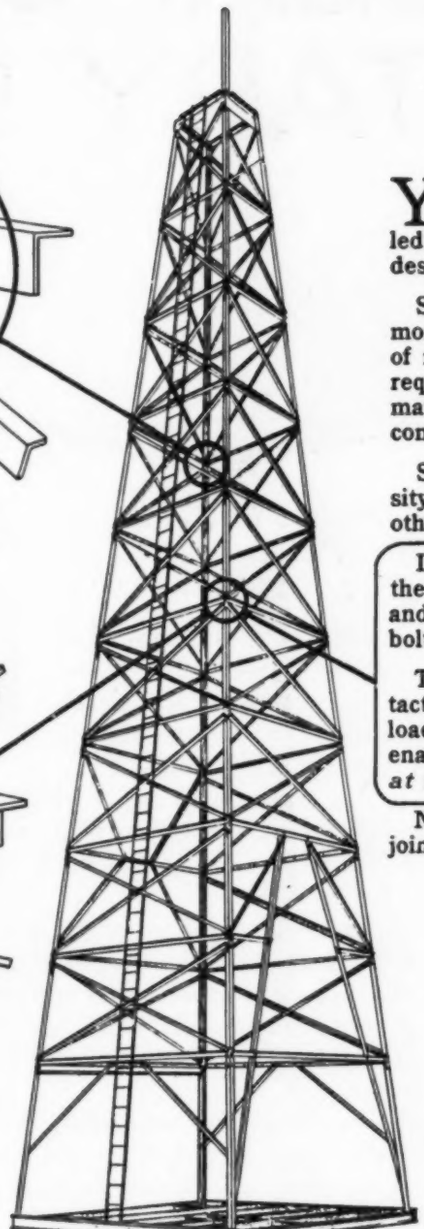
—Perfected
—Patented
—Reinforced



After the nuts are tightened, the joint is secure. Note butt-to-butt contact



Outside view of joint, with girts and braces in position



YEARS of oilfield experience with wide knowledge of every type of steel derrick led us to select a successful *structural* steel design and *improve* it.

Structural shapes are readily available in more sizes and weights than any other form of manufactured steel. Due to this, derrick requirements can be more closely approximated in *structural* shapes than in any other commercial shapes, *and at less expense.*

Structural shapes also eliminate any necessity for the costly connections required by other types of derricks.

In Parkersburg Structural Steel Derricks, the leg joint includes a combination of slots and holes so there is no need to remove bolts for dismantling or re-erecting.

The slots insure a solid, butt-to-butt contact between leg sections which carries the load straight down the derrick legs, and enables the structure to settle completely *at the time of erection.*

No danger of Bolts becoming loose in joints, every Bolt furnished with Lock Washer.

OUR DERRICKS ARE COVERED BY PATENTS

Patent Nos. 852486, 898027, 877624, 946815, 1090955, 1306793, 1341096

Other Patents pending

Ask our nearest representative for detailed specifications

PUMPERS
59′ 0″ x 20′ 0″
75′ 0″ x 20′ 0″

DRILLERS
81′ 0″ x 20′ 0″
88′ 0″ x 22′ 0″

The PARKERSBURG RIG & REEL COMPANY

Main Office and Works, Parkersburg, W. Va. ***New York Office,*** 30 Church St.

California Representatives, BUCK & STODDARD
485 California St., San Francisco, Calif.; Box 720, Arcade Station, Los Angeles, Calif.

District Offices and Distributing Warehouses from which Parkersburg Service is available

TEXAS
*Houston
Breckenridge
Corsicana
Iowa Park
Luling
Orange
Ranger

WYOMING
*Casper

LOUISIANA
*Shreveport
Cotton Valley
Haynesville

KANSAS
Eldorado
Madison

WEST VIRGINIA
Parkersburg
Clarksburg

OKLAHOMA
*Tulsa
Bristow
Drumright
Holdenville
Hominy
Okemah
Okmulgee
Wetumka
Tonkawa
Wilson
Shidler
Stroud
Wewoka

ARKANSAS
*El Dorado
Louann
Smackover
McNeil

MONTANA
Sunburst

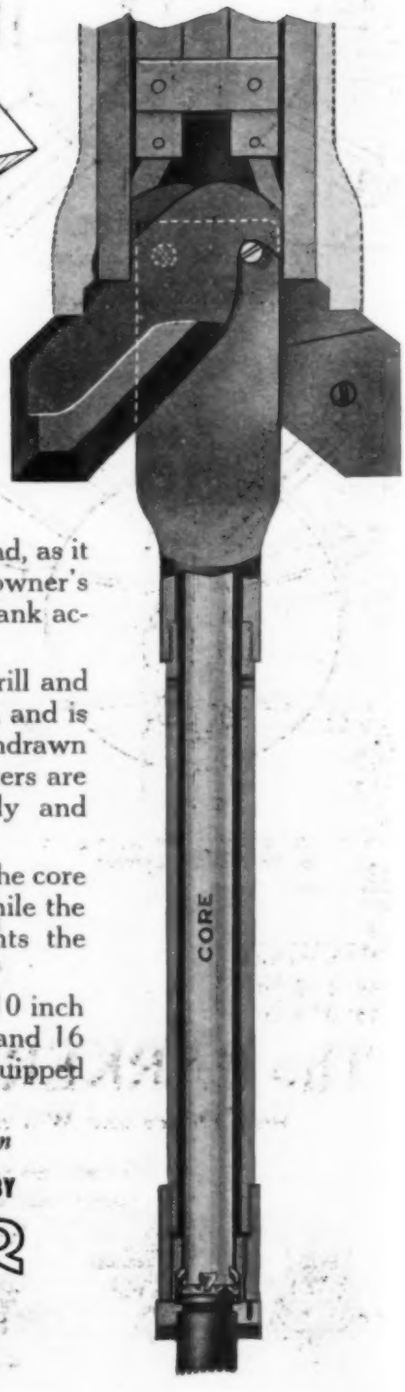
COLORADO
Denver

*District Offices

Say you saw it in The Oil Weekly

The STANDARD COLLAPSIBLE ROTARY DRILL

CHANGING CUTTERS REQUIRES BUT A FEW MINUTES



Descends inside the drill stem and expands to required diameter at bottom of the collar. It is quickly collapsed and withdrawn to surface for change of cutters, without removing drill stem.

It is the driller's and roughneck's friend, as it saves them much labor, and is the well owner's protection against rapid depletion of his bank account.

The Core Barrel is attached to the drill and descends like the drill inside the drill stem and is revolved by the drill stem collar. It is withdrawn in the same manner as the drill. The cutters are removable and when dull can be easily and quickly replaced.

The drill stem can be revolved while the core barrel is descending and ascending, and while the cutters are being changed, which prevents the slightest danger of "freezing".

Drills for 4 inch drill stem cut 8 and 10 inch holes. Drills for 6 inch drill stem cut 14 and 16 inch holes. However, each drill can be equipped to cut larger or smaller holes.

Write for folder containing full information

INVENTED, PATENTED AND MANUFACTURED BY

O. M. CARTER

W. T. HILTPOLD, SALES AGENT
206-7-8 SCANLAN BLDG.
HOUSTON, TEXAS

Say you saw it in The Oil Weekly

INDEX TO ADVERTISERS

A

Ajax Iron Works 58
Alamo Iron Works 61
American Cable Company ..... *
American Tank Company ..... *
Axelson Machine Company ..... *

B

Baash-Ross Tool Company 60
Baker Casing Shoe Company 61
Baldwin Chain & Manufacturing Company... *
Barnickel, Wm. S., & Company 22
Bessemer Gas Engine Company 13
Black, Sivalls & Bryson, Inc. 70
Bradford Motor Works 59
Brandon, A. H. 51
Bridgeport Machine Company ..... Back cover
Brownell Company 62
Brown Welding & Machine Company 46
Buckeye Traction Ditcher Company ..... *
Burns Tool Company ..... *
Butler Manufacturing Company ..... *
Byers, A. M., Company ..... *

C

Cameron Iron Works ..... *
Carter, O. M. 18
Central Steel Company ..... *
Childs, Bert ..... *
Colonial Steel Company ..... *
Columbian Steel Tank Company ..... *
Columbus Sucker Rod Company, The ..... *
Connoly Agency, D. F. ..... *
Continental Supply Company. Inside front cover
Crain Ready-Cut House Company 72
Cunningham Company ..... *

D

D. & B. Pump & Supply Company ..... *
Darling Valve Manufacturing Company 9
De La Vergne Machine Company ..... *
Deane, Early 62
Detlor, W. Edson ..... *
Dewey Friction Wheels Company ..... *
Deussen, Alexander 63
Donoghue, David 63
Dunn Manufacturing Company ..... *

E

Elliott Core Drilling Company ..... *
Emsco Steel Products Company ..... *
Everett, R. B., & Company 60

F

Fort Worth Laboratories 62
Foster & Reiter 63
Franklin Valveless Engine Company ..... Inside back cover
Frick-Reid Supply Company 67

G

Gantz Tank Company ..... *
Gaso Pump & Burner Mfg. Company 3
General American Tank Car Corp. ..... *
Gott, H. P., Manufacturing Company ..... *
Gould Burner Company 58
Goulds Manufacturing Company 57
Graver Corporation ..... *
Guiberson Corporation 8
Gulf Coast Machine & Supply Company ..... *
Gulf Refining Company 12

H

Halliburton Oil Well Cementing Compnay... *
Hardway & Cathey 63
Harrisburg Pipe & Pipe Bending Company.. *
Heydrick Mapping Company 62
Hirsch & Hannay 63
Hope Engineering & Supply Company 64
Hopkins, Edwin B. 63
Hough Manufacturing Company, Charles N.. 64
Houston Engineers ..... *
Houston Pump & Supply Company 58
Hughes Tool Company ..... Front cover
Humble Oil & Refining Company 15

I

International Derrick & Equipment Company. *
International Supply Company ..... *
Iron King Manufacturing Company 4

J

Jarecki Manufacturing Company ..... *
Jensen Bros. Manufacturing Company 60
Jones Company, S. M. 14

K

Kansas City Hay Press Company 62
Kansas City Structural Steel Company ..... *
Keystone Driller Company 62
Keystone Pipe & Supply Company 61

L

Lancton, F. C. 63
Layne & Bowler 10
LeBus Rotary Tool Works ..... *
Lockett, A. M., & Company ..... *
Lorraine Corporation ..... *
Lucey Manufacturing Corporation ..... *
Ludlow Valve Manufacturing Company ..... *

M

MacClatchie Manufacturing Company ..... *
MacIntosh, P. R. 63
Magnolia Petroleum Company ..... *
Maloney Tank Manufacturing Company 40
Marion Machine Foundry & Supply Co. ..... *
Moore, Lee C., & Company 5

N

National Supply Companies 69
National Transit Pump & Machine Company. 20
National Turnbuckle Derrick Company ..... *

O

Oil Conservation Engineering Company ..... *
Oil Well Supply Company 6-7

P

Pacific Oil Tool Company ..... *
Palmer Specialty Company ..... *
Parkersburg Rig & Reel Company 17
Pattin Bros. Company ..... *
Peden Iron & Steel Company 50
Pelican Well Tool & Supply Company 49
Petroleum Rectifying Company 51
Petroleum Supply Company ..... *
Pioneer Tank & Boiler Company ..... *
Pittsburgh-Des Moines Steel Company ..... *
Pittsburgh Reinforced Brazing & Machine Company 11
Powell Company, The Wm. ..... *

R

Ratigan, J. P. ..... *
Reading Iron Company ..... *
Reading Steel Casting Company ..... *
Reed Roller Bit Company 32-33
Regan Forge & Engineering Company ..... *
Republic Supply Company 16
R. F. Electrical Manufacturing Company ..... *
Reschke Machine Works ..... *
Rex Tools ..... *
Rickman, H. 53
Ring, Dewitt T. 63
Robertson-McDonald Lumber Company 57
Robinson, Heath M. 63
Robinson Packer Company ..... *

S

Safety Pulling Machine Company 42
Schley, Jack A. 63
Shaffer Tool Works ..... *
Sinclair Refining Company 35
Smith Corporation, A. O. ..... *
Smith Separator Company ..... *
Sour Lake Machine & Supply Company 56
South Chester Tube Company ..... *
Southern Brass Manufacturing Company 63
Southern Engine & Pump Company ..... *
Spence, H. M. 50
Spengler Core Drilling Company ..... *
Standard Engineering Company 39
Stanley Belting Corporation ..... *
Star Drilling Machine Company ..... *
Stone, Jesse R. 63
Sullivan Machinery Company 44
Superior Tube Company ..... *

T

Texas City Terminal Railway Company ..... *
Texas Oil Pump Company ..... *
The Titusville Forge Company ..... *
The Titusville Iron Works ..... *
The Tyler Tube & Pipe Company 56
Trimont Manufacturing Company 57
Trumble Gas Trap Company 51
Twin City Company ..... *

U

Union Natural Gas Company of Canada ..... *
United Iron Works ..... *
United States Torpedo Company 56

V

Vinson, Elkins & Wood 63

W

Ward Chemical Company ..... *
Webster, C. W. 62
Western Machinery Company ..... *
Westinghouse Elec. & Mfg. Company ..... *
Wickwire Steel Corporation ..... *
Williamsport Wire Rope Company ..... *
Wilson Oil Tools Corporation 56
W-K-M Company, Inc. ..... *
Wyatt Metal & Boiler Works ..... *

Y

Yale & Towne Company ..... *

Z

Zero Hour Torpedo Company ..... *
Ziegler, Max 63

*Printed in one or more issues of each month.

TRANSIT

End Packed Plungers

500-1000 Lbs. Working Pressure

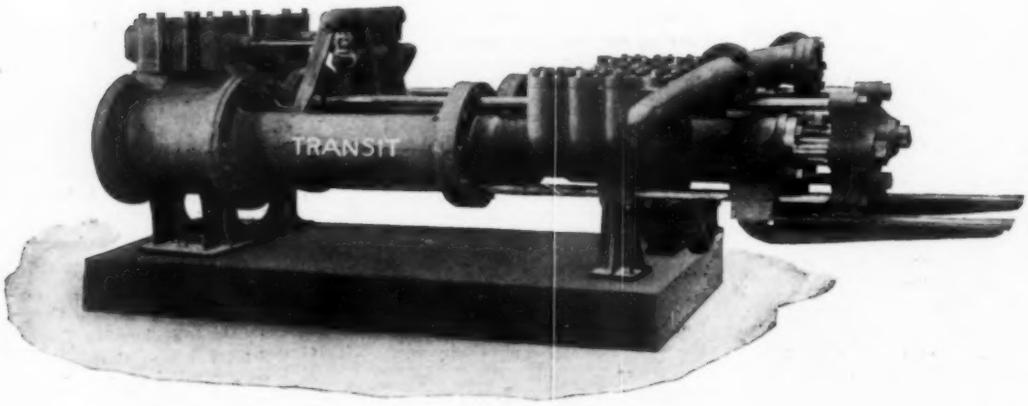


Fig. 540
Steam cylinder diameter 18″. Plunger, diameter 5″.
Length of stroke 18″. 6″ suction, 3″ discharge.

These pumps are designed for CONTINUOUS operation against pressures up to 1000 lbs. per square inch. This means that they are built strong and rigid with broad bearing and packing surfaces. The relatively long stroke cuts down the number of reversals, and saves wear and tear on all moving parts.

Where the cost of steam runs high, these pumps can be furnished with compound steam ends.

Send for Bulletin No. 12 for a complete list of sizes and capacities.

NATIONAL TRANSIT
Pump & Machine Company
OIL CITY, PA.

DISTRICT OFFICES:

NEW YORK PHILADELPHIA PITTSBURGH CLEVELAND TULSA HOUSTON DENVER

JAN 10 1925 © CI B648621

THE OIL WEEKLY

An International Oil Publication for Oil and Gas producers

Offices:
NEW YORK
LOS ANGELES
CHICAGO
FT. WORTH
TULSA

A. L. BURNS, *General Manager*

Published weekly by
Gulf Publishing Company
HOUSTON, TEXAS
R. L. DUDLEY, *President and Publisher*

Established 1916
Member of the Audit Bureau of Circulations
SUBSCRIPTION RATES:
$1.00 *per year* - *Foreign* $2.00 *per year*

SPENCER W. ROBINSON, *Editor*

Vol. 36 **FRIDAY, JANUARY 9, 1925** **No. 3**

Market Structure Firming for Advance

Crude buyers active in anticipation of general crude price raise; gasoline and fuel stronger

THE rise of Wortham's daily production above the 100,000 barrels level early this week for the first time was made possible through the completion of a series of big wells in rapid succession within the proven area. The field is expected to remain above this level for some weeks to come, as favorable weather has restored drilling operations to normalcy, although a number of tests are standing idle for lack of boiler water, and new wells will be added each day until the structure is defined and drilled. Indications that the producing area has been overplayed for its width were brought to light late last week when a salt water well was developed on the J. J. Manning lease on the east side of the railroad tracks and about mid-way the length of the field. This failure tested water and no signs of oil and gas in the regular sand at 3003-27 feet, and offers evidence that the field will be less than 2000 feet wide at its present mid-way point, as the approximate limit of the field to the west is known by the position of the fault line. The widest part of the field is believed to be just south and in the townsite, while the length is already proven for 16,000 feet.

The increasing demand for high gravity crude in other fields in the Mid-Continent District is bringing new buyers to the Wortham area in such numbers that the Wortham producers have discounted the possibilities of their posted price being reduced, as was the case at Mexia and Corsicana-Powell fields when flush production became plentiful. The major companies have mobilized their ablest crude buyers at Wortham to make contracts with independent producers, and are most liberal with their pipe line service. Water is proving to be a major factor in landing new crude connections in the field, and the crude buying agencies that can supply producers with water for drilling purposes are given preference. The Texas Company is piping water through one of its converted oil lines from Dallas, a distance of about 100 miles, to the field to take care of independent producers, whose production has been contracted for in exchange for supplying water. The W. K. Campbell Company and the Clayton Oil & Refining Company are delivering water to producers in the field via tank cars on the same basis as that carried out by The Texas Company. The W. K. Campbell Company is hauling water from Angus, and is prepared to ship crude to the Gulf Coast for delivery via tankers to Atlantic Coast refineries, with a 75-car rack north of Wortham, while Clayton is hauling crude from the field via tank cars to its refinery at Dallas, and sending the cars back loaded with water, with the same freight rate applying on both loads. Producers are seeing fit to pay exorbitant prices for water delivered at their boilers in order to participate in the limited amount of flush oil production the field offers.

Less concern is being shown by producers and refiners over the threat offered by big flush production in the Wortham area

Table of Contents

SPECIAL FEATURES

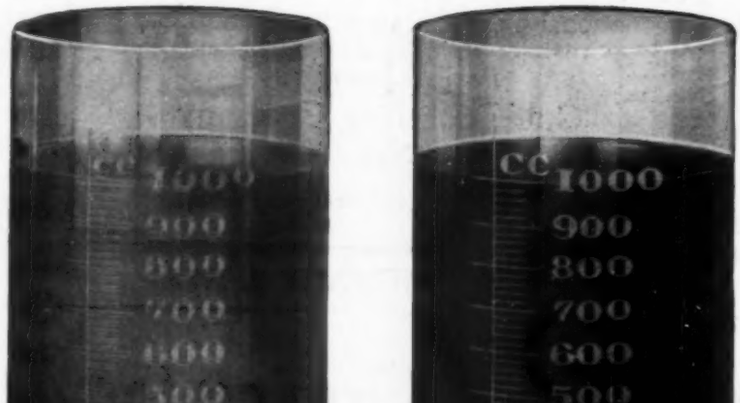
	Page
Market Situation Firming for Advance	21
Prairie Line to Open New Shallow Field	54
Lincoln County, Oklahoma, Uncanny Area	23
Valuation of Oil Properties for All Purposes	26
Italian Villa Serves As Field Man's Home	31
Oklahoma Production Decline Continues	41
Gas and Oil Showing in Deep Rosecrans Test	37
Wortham Passes 100,000 Barrel Mark	43

REGULAR FEATURES

Production Tables for All Fields	38
Completions in All U. S. Fields	47
Field Notes and Reviews	37
Imports at Principal U. S. Ports	39
Permits for New Wells	52
Wildcat Drilling Reports	55
Crude Oil Price Quotaions	34
New Equipment—Bulletins—Books	65
Letters of Paul Peebles	68
"Squeaks" From the Bull Wheel	71

The OIL WEEKLY wants only such subscribers as are engaged in the oil producing or pipe line business, or sub-branches of the producing and pipe line business. It has no desire for investor circulation, and it reserves the right and will exercise the right to reject subscriptions coming from persons whose interest in the oil industry is through the purchase of oil stock.

R. L. DUDLEY, Publisher.



A
Cut Oil

B
Pipe Line Oil and Water

HOW TO GET FROM A TO B IS THE PROBLEM OF MANY A PRODUCER

Why Not Just Add Tret-O-Lite?

That is not merely the simplest and most economical method. It is the ONLY method that will take you ALL THE WAY—that is, it is the only method that recovers ALL the oil and may be said to do a thorough job.

Cut oil is a problem in CHEMISTRY, for it deals with an "emulsion," which means a certain chemical condition of two or more liquids. Being a problem in chemistry, it is not surprising that the CHEMICAL process of treating cut oil (patented by us under the trade-name of the Tret-O-Lite Process) has proved the only thorough and scientific method.

It is no more scientific to attempt to solve a chemical problem by physical means, than it is to try to remove a man's appendix by massage treatments.

The TRET-O-LITE Process, the most widely used of all processes, should be investigated by every producer who has cut oil or tank bottoms to deal with. Our nearest field expert will be glad to call on you without obligating you in the least. Just write us you wish to see him.

Wm. S. Barnickel & Company

ST. LOUIS, MO.

Offices and Plant: Webster Groves, St. Louis Co., Mo.

Tret-O-lite

Reg. U. S. Pat. Off.

Lincoln County, Oklahoma, Uncanny Area

With pools on three sides, consistent search shows little evidence of oil in the county

By W. Lee Sloan
Staff Representative

OIL producing areas have been found on three sides of Lincoln County, Oklahoma, but within its limits there has possibly been no other territory so uncanny.

Ten years ago the county had its first showing of oil and prospectors went to work in earnest to find out just why the county should be bounded on three sides by oil pools and yet no evidence of it inside its lines. Although geologists were confident that there was production there it was a difficult matter to find out just where it was and at what depth. The favorable reports on the county at that time prompted the major companies to take ten year leases on the larger part of the county and it seems that the holders of these ten year leases have been waiting for someone else to prove it up for them.

In making a study of the map of Oklahoma today, there is possibly no other county in which more interest is being displayed than in Lincoln County. The map of the county is the one which seems to be on the top of the pile which lays on the desk of the lease buyers for the larger companies.

When the Magnolia Petroleum Company purchased an unfinished well and a large block of acreage in Lincoln County from Flynn and Morgan, operators of the state immediately branded the sand found as the Bartlesville. Some were of the opinion that it was some other sand. No one seemed to know just exactly what sand had been found. It was not until the sand found in this Magnolia well and the J. C. Cook well in section 15-14-6 was announced the Peru, that the major companies really took the territory in earnest. Some of the best wells brought in in the Cushing field and those around Bristow were found in the Peru sand.

More than three years ago the Magnolia Petroleum Company found a five million cubic foot gas well two miles west of the town of Chandler at a depth of 2600 feet. This well was never completed as a commercial producer of oil, nor was their No. 2 well which had a good showing of both oil and gas.

The Magnolia Company also drilled a well five miles northwest of the town of Carney about three years ago but the well was abandoned at a total depth of 3540 feet without a showing. One year before that well, Dingwall and others drilled to 4473 feet in section 2-16-4 but this was also abandoned as a dry hole. The deepest well ever drilled in the county was the property of the Carter Oil Company, drilled three years ago and plugged at a total depth of 4485 feet.

With the exception of the Stroud pool on the eastern edge of the county, nothing of consequence happened in Lincoln County until the Flynn and Morgan completion in the Peru sand. This well was finished by the Magnolia Company and is now producing 300 barrels of oil daily from a total depth of 3468 feet. There is no water showing in this well at the present time.

After the Magnolia completion near Davenport, the most interested parties drifted down south to the Cromwell field which was at that time commanding the attention of the entire oil fraternity as being a major factor in determining the future situation.

This ebbing interest was brought to the fore again when the Independent Oil & Gas Company of Okmulgee hit the Peru sand at 3778 feet and after drilling in to 3788 feet, the well made 280 barrels as initial production. Production of the well at the present time is 180 barrels per day.

Today on a tiny strip of land in Lincoln County the remnants of a once mighty tribe of Indians have found a home. It is all that is left of the Sac and Fox tribe which were moved to Oklahoma from the banks of the Fox river in Mississippi. There are only 199 members of this once powerful combination, poverty and plague having reduced the ranks. In 1868, the United States government gave 750 square miles of land to this tribe of Indians. Today the tribe has only 780 acres left.

It is on this tiny strip that J. C. Cook and others found a Peru sand well in section 15-14-6. At a total depth of 3030 feet, the well made 75 barrels of oil per day but it was decided by the operators to make a deep test out of it and drilling to the Wilcox sand is now in progress. In the event the Wilcox sand is not found productive, the well will be plugged back to the Peru sand and other wells will be drilled.

Little has been written about the Sac and Fox tribe of Indians yet from this small group came two outstanding figures. One was Black Hawk, the Indian against whom Abraham Lincoln led a company of Illinois riflemen—the other is Jim Thorpe, America's most famous athlete of all times.

The Pure Oil Company had a well in section 12-14-4 which made several small flaws from what was thought to be the Peru sand at 3731 feet but after drilling four feet deeper, encountered water. This well is located two and one-half miles northeast of Chandler, Oklahoma.

The most important pool to have been found in Lincoln County was the Stroud pool which was opened up by the Union Petroleum & Supply Company not far from the townsite of Key West. The Stroud pool reached a peak of 30,000 barrels per day, production from the deep Wilcox sand below 4000 feet but today the total output of the field is approximately 2500 barrels per day with the pool well defined on all sides. For a small pool, the field has possibly produced as much oil as any ever found in Oklahoma but today it is not included in the list of determining factors.

The drilling report shows that there are 32 wells now drilling in Lincoln County outside of the Stroud field. These wells are scattered to all extremes of the county as shown on the map accompanying this survey. Eight wells are drilling in the Davenport area around the Magnolia well while the remainder are amost all of wildcat nature.

Operators in Oklahoma are wondering what fate has in store for the Sac and Fox tribe. Although it is not probable that they will ever rival the Osages many hope that they will find wealth on the barren land of their reservation.

Following is a list of drilling wells in Lincoln County:

Roy Willis' No. 1 Sutton, SWc NE 19-17-3; No. 1 Yound, SEc NW 23-17-3. Grimes et als' No. 1 Strong, NWc NE 20-17-5. Carter Oil Co.'s No. 1 Meeks, SWc 26-16-2. Wilcox & Oswalt's No. 1 Hobson, SWc 16-16-4. Day Oil Co.'s No. 1 Briggs, SEc 23-16-6. F. O. Howarth's No. 1 Harris, SEc NE 22-15-2. Santrock Drlg. Co.'s No. 1 Powell, SEc NW NW 17-15-3. Magnolia Petroleum Co.'s No. 1 Maness, SEc SW NE 27-15-5; No. 1 Dodrell, NEc SW 32-15-4. Ruby et al's No. 1 Cull, NEc NW 36-15-4. Gypsy Oil Co.'s No. 1 Sawyer, SWc SE SE NW 1-15-6. McMann O. & G. Co.'s No. 1 Rinkston, SEc NE 2-15-6. Skelly Oil Co.'s No. 1 Ford, NEc NE NE 7-15-5. John Dahl et al's No. 1 Hubbard, SEc SW 15-15-6. Pure Oil Co.'s No. 1 Leake, SEc SW 12-14-4. J. C. Cook's No. 1 Fequay, SWc NW SE 20-14-4. Twin States' No. 1 Bigwater, SWc NW NW 2-14-5. Magnolia Petroleum Co.'s No. 1 Sukovaty, NWc SW SW 2-14-5; No. 1 Sproleder, NWc NW NE 3-14-5; No. 1 Sukovaty, SWc NW NE 3-14-5. Southwestern Pet. Co.'s No. 1 Bagwell, NWc SE 3-14-5. Davenport O. & G. Co.'s No. 1 Tate, NEc SW SE NW 10-14-5. Wolfe Bros.' No. 1 Bluock, SEc 16-14-5. Magnolia Petroleum Co.'s No. 1 Bray, NWc SW SE 18-14-5. Douglas Oil Co.'s No. 1 Ewing, NWc 7-13-3. Mountain States' No. 1 Lewis, SWc 5-13-6. Producers & Refiners Corp.'s No. 1 Hainzig, SWc NW SW 14-13-6. Eu-

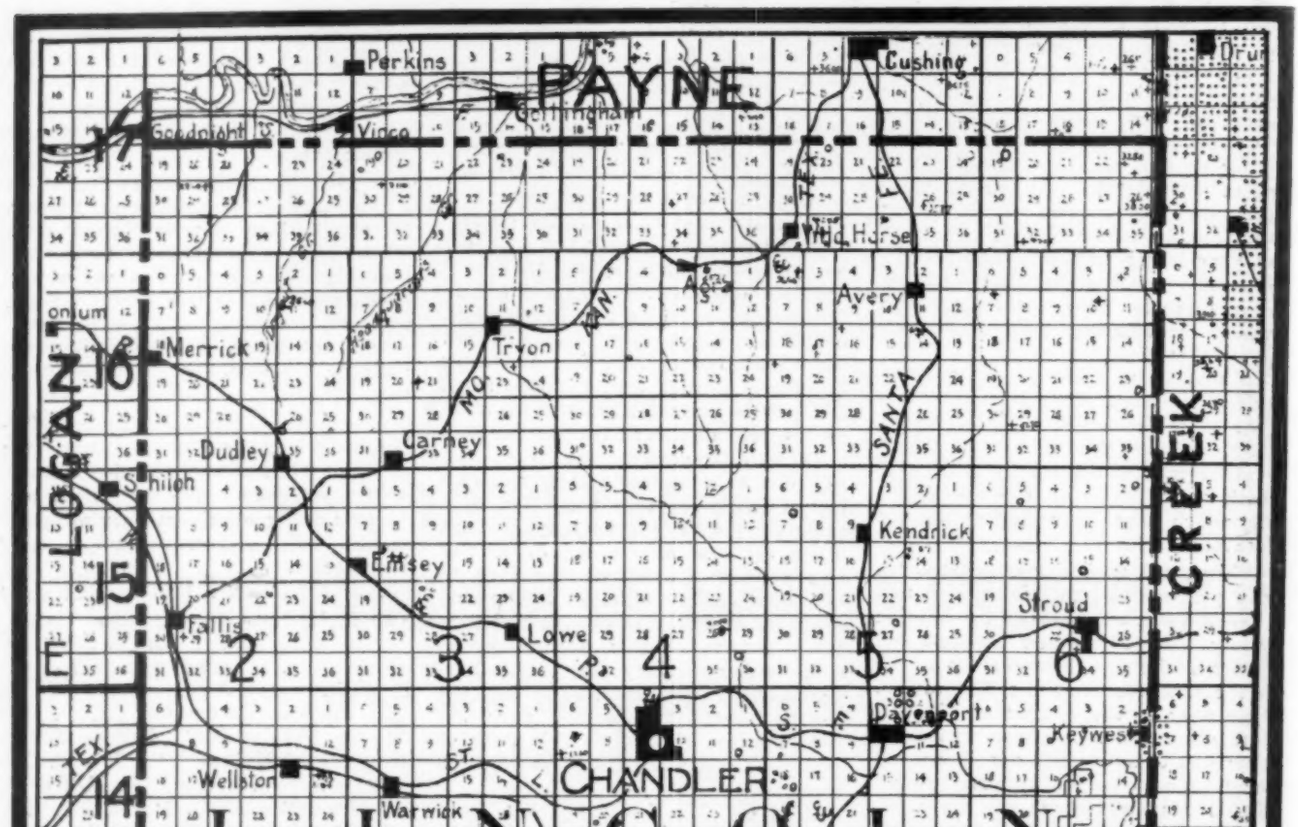
gene Costa & Co.'s No. 1 Ross-Fortune,, SEc NW 26-12-2. H. F. Wilcox O. & G. Co.'s No. 1 Smith, SEc SW NE 12-13-3. J. C. Cook's No. 1 Richardson, NWc NW SW 8-12-5.

Burbank Operators Agree On Vacuum

Tulsa, Okla., Jan. 5.—At a meeting of Burbank operators, called to discuss the vacuum situation in that field, the following resolution was drafted:

"That the Osage operators in the Burbank field have the alternative of restricting vacuum to 10 points or keeping the sand continuously flooded (flooding means covering the top of the first oil pay sand). This agreement shall remain in effect up to and including June 30, 1925. Any operator desiring to carry more than 10 points vacuum in any well in which the sand is covered, shall notify the offset owner and satisfy him that the pay sand is covered in such well. In case of dispute, matter shall be determined b vote of two arbitrators appointed on by each party. If arbitration canno agree, they shall appoint a third, an vote of majority shall be final and bind ing on all parties."

On account of the fact that severa Burbank operators were not present a the meeting, final adoption was post poned until the committee could hea from those not present. A meeting t further consider the subject was set fo June 1, 1925.



Map of Lincoln County Oklahoma showing drilling wells and its close proximity to producing areas of other counties.

Burkburnett Gas Reserve Fast Vanishing

Situation endangers natural gasoline plants and forces lease owners to seek other power

By H. H. King
Staff Representative

Burkburnett, Texas, Jan. 5.—Lack of new gas production and the natural decline of wells in the Burkburnett field has brought forth a condition whereby the lease owners must abandon the use of natural gas, or residue for power in pumping their wells and operating vacuum stations, else deprive themselves of an attractive revenue through the sale of this unusually rich gas to natural gasoline manufacturing plants. The production curve on natural gas in the Burkburnett field has been falling at a faster rate in the past two years, with vacuum being pulled on the wells to the limit, and the return of cold weather has diminished the volume of residue from the full score or more plants to a level that is barely sufficient to operate on when the maximum recovery is taken from the natural gas.

This condition has been growing more serious each year, and a number of foresighted lease owners have prepared themselves by switching from gas fuel to electric motors, or engines deriving their power through gasoline or fuel oil carburetors. A great number of individuals and small companies operating leases in the field have hesitated on making this change in their lease equipment, and when cold weather practically eliminates residue gas returns the field men are allowed to divert all the natural gas from the plants and utilize this rich gas for fuel in the pumping engines. The plant owners, who have been operating below their built capacity since the "head" was taken off the Burkburnett field, are placed at a further disadvantage, and will be forced to junk the plants dependent on purchased gas unless the producers discontinue the use of fresh gas in pumping wells.

The loss of revenue from gas sales to natural gasoline plants is keenly felt by Burkburnett producers, but many have elected to make this sacrifice, which is more general during the winter months, rather than to assume the expense of replacing their gas engines on individual wells and central power plants with electric motors or oil burning engines. The days of gas engine use in the field are fast approaching the end, and the gas supply will be exhausted before the wells cease to produce oil in commercial quantities, thereby making it necessary to install motors or oil engines during the final period of the life of the wells. Considerable thought has been given this situation by producers during the past year, and a careful investigation has resulted in many removing their gas engines and selling every available foot of their rich gas production to help defray the cost of making the change in their pumping equipment before the individual well revenue declines to a level that would not justify an added expense in equipment.

Gas production in the Burkburnett field has declined to less than 3000 cubic feet per well daily, and considering that an ordinary 25 h. p. gas engine uses approximately 10,000 cubic feet of gas daily, the life of a gas engine in the field has already passed on the majority of the leases in the field. This gas carries an unusually large gasoline content, ranking among the highest in the country, and many of the natural gasoline plants are shipping from 9 to 10 gallons of gasoline per thousand cubic feet of gas, while the yield from gas in some of the wells runs well above 15 gallons per thousand cubic feet. Such a high gasoline yield materially lessens the volume of residue available after the gas has been run through a plant, and when a reasonable amount of residue is used for fuel in the plant only about 15 to 25 per cent of the original volume remains, thereby making it almost impossible to return enough residue gas for lease operation.

Some of the gasoline manufacturers have old gas contracts calling for the return of a certain percentage of the gas furnished from wells for lease operation, and in such cases the full contents of the gas cannot be extracted, while some of the plant owners have seen fit to purchase dry gas from a local distributing company and deliver to producers in lieu of residue gas from their plant. This practice involves heavy expense in carrying on operations, and often places the gasoline manufacturer on an unprofitable basis.

The gasoline yield of Burkburnett gas has reached its peak in volume, as the prevalence of water in the oil and gas sands creates a vapor that serves to cut the gasoline contents down. The percentage of air handled with the gas drawn from wells by vacuum is also steadily increasing, and some of the plants are operating on vapors that carry as high as 40 per cent air. Handling such a volume of air through the plant has materially added to the operating expense, and employes of Burkburnett plants have accomplished much in perfecting means for overcoming the difficulties that the air problem offers.

Crude oil production in the Burkburnett field amounts to less than five barrels daily per well, and the field has 3350 shallow and deep wells, but gas is not available in all the pumping wells, while a few wells are producing gas that is too lean to use in a natural gasoline plant. Crude production is greatly reduced when cold weather prevails, owing to gas production falling off below the needs of gas engines on pumping wells, and the shutdown time loss is costly to lease owners, as the wells show the effect of standing idle several days with water on the sand pay.

Electric motors have been used to replace gas engines on many of the leases in the Burkburnett field, while a number of operators are finding gasoline and crude oil carbureters more economical. The Wichita Falls Electric Company is in a position to provide ample power for electric motor operations, and the electricity charge for single well operation on the beam is $50, more or less, while the rate is much cheaper when operating a power with electricity.

Since some of the leases in the field have a fairly good gas supply during the summer months, the gasoline carburetor on a gas engine is probably the most popular substitute for gas power, as the engine can be switched from gas to gasoline on short notice. The gasoline cost is not great, since low grades of gasoline can be burned without difficulty and ample power exists. Magnolia Petroleum Company is using gasoline carburetors on a number of its wells and central power plants, and its booster station on the Van Cleave lease is equipped with a 35 h. p. Ingersoll Rand engine that can be switched from gas to gasoline in a few minutes time. This engine burns about one 55-gallon drum of gasoline every 36 hours while carrying a heavy load, and has a Kingston Model "E" carburetor that has been in use for several years without giving trouble. This carburetor permits an air mixture of about 85 per cent, thereby holding down fuel costs. Small pumping engines at wells consume about one gallon of gasoline per hour when a good mixture of air is added.

A crude oil carburetor has also been introduced with success by some of the companies in solving their power troubles, but the crude oil carburetor is more complicated than the gasoline carburetor and used less extensively. The crude oil carburetor affords the most economical power of any available in the field, and the vapors obtained from the crude in supplying fuel for such a carburetor does not lessen the quantity or gravity of the crude used to any noticeable extent.

Valuation of Oil Properties For All Purposes

Property is worth what it may be reasonably expected to return, plus interest on the sum

By J. L. Darnell

Before Fifth Annual Meeting, American Petroleum Institute, Texas Hotel, Fort Worth, Texas, Afternoon Session, December 10, 1924.

UNTIL a comparatively short time ago oil producing properties may have been said to have no value at all save in purely speculative sense.

Nobody knew or seemed to know very much about them except that the wells were producing oil and the whole business was on a more or less day to day basis. The greatest fortunes made in oil in the latter part of the nineteenth century were not acquired through its production but in the transportation, refining and marketing of it. Oil production was too risky and hazardous to be dignified by calling it a business. It was regarded as a gamble, pure and simple; a little better perhaps, than poker or roulette, about on a par with horse racing, but not quite so good as gold or silver mining. Certainly there was nothing in the business to attract capital, and as a consequence few ever gave it any study.

By the beginning of the present century the oil business was a business alright, but the producing end of it was still a more or less questionable occupation and was in the hands of the so-called rough-necks. There was plenty of oil in the country to supply the demand. The refiners and marketers, the business men, were perfectly content to leave production in the hands of the speculators and gamblers.

With the twentieth century, however, all this is changed. Remarkable mechanical developments have so increased the demand for oil products that Mr. Isaac Marcosson in his late book, "The Black Golconda", says that oil instead of being the prize lubricant has become, with the sole exception of the German reparations, the principal present-day international irritant.

A Real Business

Oil production is today a business; big business if you will, with all the trappings and habiliments that go with such, and necessarily businesses have value.

So there has grown up within the past few years a school of petroleum engineers who have made a study of the various problems connected with the business of oil production, not the least of which is the valuation of oil producing properties.

Valuations or appraisals may be made for a variety of purposes. An appraiser may be trying to ascertain:

Exchange value;
Consolidation value;
Production value;
Tax value.

Whatever the purpose of the valuation, however, the main factors to be considered are the same and they were very tersely stated ten years ago in a report of the appraisement committee of the Independent Oil Producers Agency of California. This committee under the chairmanship of Mr. Mark L. Requa reported that "the value of oil lands is the value of the oil to be extracted and marketed, less the costs attendant thereon", and further stated that in making their appraisal the committee had carefully considered the following facts:

1. That from each property there will be ultimately produced a certain total quantity of oil.
2. That in the production of that oil a certain total quantity of money will be expended.
3. That a certain total amount of money will be received from the oil.
4. That the total net receipts will be the total gross receipts less the cost of development and production.
5. That the present value of the net receipts must be such a value that when invested by a purchaser it will be returned with eight per cent interest additional during the life of the property.

First Valuation

While these definitions of the elements of value were not new when they were thus briefly set out by the Californians there is no record of their ever having been applied before to an oil-producing property. Certain individuals working independently in different parts of the country were striving to impress upon the industry as a whole the perfect plausibility of valuations of oil-producing properties by analytic methods. Owners, however, declined to be impressed. Oil production had been too long a hit and miss affair and those who should have been most interested seemed to be perfectly content to have it remain such.

Increasing demands for crude, however, with the consequent increase in the sharpness of competition and, more than any other single element, the inception of the Federal income and excess profit tax laws, forced attention to the fact that valuations were necessary and essential and that the principles set out by Mr. Requa's committee were correct and that they could and should be applied to all properties.

Various writers on the subject have said that valuations made for different purposes will be different. For instance, Professor Roswell Johnson in his book on oil and gas production says:

Two Values

"An oil property may be said to have two values, or to have value in two different senses.

"First, there is the exchange value, that amount for which it can be sold; and second, its productive value, or the amount of present capital which the income can repay with that rate of interest necessary to attract capital to such ventures, including the consideration for risk. These two values are seldom the same, and the skillful appraiser endeavors to ascertain each value, so that if the exchange value is higher he can recommend the sale of the property; if lower, its purchase."

Or to state it another way, it would appear that an oil property may have a different value for exchange—for consideration, for productive value and for federal tax value and for either of these a different value for buying and selling.

Certainly if true all this would be very confusing and it seems to me that the very word value is outraged by such a multiplicity of definitions.

Value is value, and while there may be differences of opinion as to the elements which go to make up the whole, as well as to the comparative weight to be accorded each, for whatever the purpose the valuation is made the answer should be the same.

Basis of Value

One of the soundest of economic laws is that the value of anything is the present worth of prospective earnings. This principle is applicable to all the elements which go to make up the world's commerce and is firmly established. Apply this to oil and we find that an oil property may be said to be worth a given sum when there is a reasonable certainty that it will return that sum plus interest within a given time.

Consequently the problem in the valuation of any oil property is to find out how much money will be gained from the property and how long it will take to get it. Thus we come to a somewhat briefer statement of the elements noted by Mr. Requa's committee in California ten years ago. That is that in making a valuation for oil-producing property it is necessary to determine—

1. Ultimate recoverable oil.
2. Development, operating and overhead expense.
3. Equipment expense.
4. Discount factor.

Estimates Difficult

The first of these, the estimated recoverable reserves on any tract or property is perhaps the first difficulty encountered, and it is here that nice judgment, which is the result of experience comes to the fore.

It is hardly within the scope of a paper such as this to go into the detail of the various methods of oil reserve estimation. All the schemes and plans

proposed have more or less merit, and the skillful estimator will use all, or parts of any, or even perhaps make new adaptations of old plans, to fit the particular property in hand.

Too much dependence has in late years been placed on the average decline curve method for estimating oil reserves. As a matter of fact there is no such thing as an average oil well or an average oil-producing property. Each well or property has its own peculiarities and each is better or worse than the average in the district.

In the hard sand districts of Oklahoma and Kansas this method does fairly well, of course within limitations. In the Gulf Coastal fields of Texas and Louisiana, however, the average curve falls down utterly, owing to the fact that the productive life of a well does not represent the productivity of the sand, but rather the physical limitations of the equipment. This is particularly true in the newer fields and becomes of progressively less importance as the fields grow in age.

Again, in the Electra field in North Texas, average decline curves are of no value, due perhaps to the lenticular character of the producing sands and to the extreme difficulty in correlation. From the day the discovery well was drilled in Electra to the present, no one has known just the horizon of the producing sands nor just at what depth they might be encountered. The drill was likely to find pay at anything from 200 to 2000 feet, and paying wells were drilled within the first year of the life of the field to nearly every depth within the ranges given. New methods obviously were necessary in this case.

Individuality of Fields

Another case is in the Mexia fields of Texas. Wells in this district seemed to pursue the even tenor of their way to decline for a number of months. Then in the summer of 1923 they apparently reached the even level of day to day production, which all good wells reach and which should go on indefinitely. Along in the early autumn these wells began to increase their daily yield until by January 1 they were producing nearly twenty per cent more oil than on July 1. One estimator whom I met working in the field was telling me of his difficulties and said that he had figured from his curves that these wells would have a life of 242 years and that they would produce an unbelievable amount of oil.

The estimator must be prepared to meet all these contingencies and adapt himself and his methods so as to best fit the case in hand. He must study the causes which make for apparent inconsistencies in the performance of individual wells or of fields and be prepared to make proper allowance in his estimates of production for each and all of these.

The great truth is that a given sand saturated with a given quality of oil should yield under modern methods of operation a certain proportion of that oil, and that, too, within a certain period of time. If there are no extraneous factors to be considered the decline curve will probably assume the shape of an hyperbola. The great trouble is that the extraneous factor is almost always present and the hyperbola becomes useless, except as a rough check.

Hyperbola

The cautionary sentence at the end of the paragraph quoted has been almost universally disregarded by callow investigators and appraisers.

Oh, Hyperbola! the sins which have been committed in thy name! Manufacturers of logarithmic cross section paper have profited, however much the art of estimation has suffered. I have seen estimators with not the remotest idea of a mathematical curve merrily plotting production curves on logarithmic paper, and too, making the extrapolation in the generally accepted straight line.

One feature usually ignored by appraisers but which is really a factor is the estimation of recoverable reserves in new properties is the development program of the owner. In a newly developed field it is always a case of the early bird and the worm. If the operating company is aggressive and active, actually more oil will be produced from a property than from the equally good acreage of a dilatory neighbor. I have a case in mind where on adjoining leases in Texas we estimated for one client about 20% more oil than for the other, because we knew the characteristics of each. And our estimates were borne out by results.

When the estimator comes to consider the expense factors in his problem he again meets a multiplicity of problems.

It is easy to say that a 2000-foot well should be drilled and equipped for a certain sum of money, but very seldom does the aforementioned sum begin to cover all the costs. The rush into North Central Texas is still within the memory of most of us. Before the railroads were built into Breckenridge, do you remember the terrific costs of cartage, of tools and equipment, of the construction of camps to take care of the workers, water to be hauled, and the fierce competition which ran labor costs up to an almost unbelievable limit. More recent examples might be cited but this one is near enough. Now then consider one of the great operating companies organized to carry on a drilling campaign with men and materials pouring into the field. Is it any wonder that it can put down its wells for a great deal less money than the individual operator?

Development Expenses

Then consider the same great company in the development of a closely controlled field where such breakneck speed is not necessary. Can you not see that development is going to be done a great deal more cheaply than in the competitive field?

Development expenses in any field necessarily vary with its proximity to transportation, to primary markets, to competition and more than any other single factor, the age of the field. Seldom does it happen that wells can not be drilled and equipped very much more cheaply in the second year than in the first, of a pool. Then, too, in figuring development expenses as well as in many of the other items going into the expense of oil production the individual characteristics of the operator must be taken into account. It just naturally costs some people more to drill oil wells than it does others. I have seen as much as 50% variation in the costs of two companies operating in the same field under practically the same conditions.

Operating expenses likewise are the subject of great differences of opinion. Of course no one questions the actual labor on the property, but how about the maintenance of warehouses, machine shops, etc., employers' liability insurance, fire and storm losses, taxes, geological and engineering services, to say nothing of scouts, superintendence and the general office overhead. All these factors have to be considered, for after all, in a producing organization the barrel of oil taken from the ground has to pay for all these things and many more which you can think of.

Handling Expenses

Part of these general expenses should be capitalized, undoubtedly, and just as truly many are legitimate charges against operation. I recall very distinctly that when after some analysis of his accounts I told an executive that his overhead or general expenses were running over 50 cents per barrel of oil produced, he assured me that I was either a fool or a liar; I, of course, had to show him, and while he never did admit that I was right, it was quite worth while to note the vigorous cuts which were made in his organization within the next year.

Anyway, the moral is, so far as this paper is concerned, that scouts and geologists and automobiles and brass-bound offices, and engineers to figure your tax deductions, all cost money, and the barrel of oil has to pay for them. So in making a valuation be sure to take all these into account.

Cost of Equipment

Equipment costs vary as do development and operating costs. One operator may equip lavishly while his neighbor is a niggard. One company I know makes rather a point of reconditioning and using second hand equipment and maintains a regular organization for this purpose. Some operators are careful and economical, others scatter money like the proverbial drunken sailor. The experienced appraisor makes a study of the characteristics of the proposed operator of a property before he makes up his estimate of equipment costs.

Then we come to the amount of

A dinner was given by the Chamber of Commerce of Bartlesville, recently with Henry L. Doherty, head of the Cities Service Company, the guest of honor. Besides Mr. Doherty and a number of his chief executives from New York, there were present L. E. and Frank Phillips, of the Phillips Petroleum Company, H. V. Foster of the Indian Territory Illuminating Oil Company, H. R. Straight vice president and general manager of the Empire companies, George Wise, Osage Indian Agency, and numerous independent oil operators who attended the dinner expressly for the purpose of hearing Mr. Doherty's plan for regulating the oil industry, which was first introduced at the meeting of the Petroleum Marketers' association, in Cleveland, recently. The event without exaggeration could be termed a "Billion Dollar Dinner" as the interests present represented in the neighborhood of that amount.

money we may reasonably expect to receive for our oil. Most engineers engaged in appraisal work, and I must admit that I too am guilty, are content to pass over this very essential element of value by saying that after all, "one man's guess is as good as another's and that nobody can know what a given quality of crude will be worth at any time in the future". This of course is true of oil as it is true of any other commodity. It occurs to me, though, that the engineer who so lightly passes the item of probable receipts is plainly shirking a palpable duty. The price of oil is difficult to forecast but there is no reason why it should not be done within reasonable limits. There are, of course, certain factors to be taken into consideration which do not appear in an effort to predict future prices or values in other basis commodities. In coal, for instance, abundant supplies as yet untouched, are lying within our borders waiting development. This development and consequent increase of productive capacity may be expected to roughly keep up with a prospective increased demand. The same is true with most of our natural resources. Oil, however, is different in that it is difficult to estimate the available supply and almost equally difficult to estimate the demand.

Supply and Demand

As a consequence crude oil is almost the only basic commodity in the list whose price or value is governed absolutely and solely by the law of supply and demand, with costs of production utterly ignored. I personally know of hundreds of wells which were operated at a positive money loss the past year. The operator with a child-like faith hopes to recoup his losses and show a general profit by balancing against the smaller wells with his high cost oil the cheaply produced flush production from big wells in new fields. So far, I must confess, his faith has been justified.

The geologist, however, is rapidly approaching the limit of his capacity to go into the field on order and bring in 10,000 barrels per day of additional production. New fields yet unheard of will undoubtedly be found, but even so the oil producing business is rapidly coming to the point where costs of production must be recognized in fixing the value of crude. And when that day comes, and it is not so far distant, it is going to be as easy to forecast the ultimate return from an oil property as from a coal mine or an iron deposit.

Discounts

And then lastly, we come to the element of discount—discount to arrive at present worth. It is a universally accepted principle amongst engineers that income to be received some time in the future must be discounted to find out its worth or value today. Mining engineers have after many years' experience come generally to use the system devised by one Haskold, an Englishman, who in 1877 published his theories of investment returns and with them his tables for figuring present worth. I say advisedly, that engineers generally have come to use this system because I am aware that in modern practice many engineers modify Haskold's formulae or discard them altogether.

Petroleum engineers are generally nowadays using Haskold's formulae and tables of discount without apparently realizing that in no sense do they apply to oil-producing properties. For one thing—and this is only one instance—Haskold's tables are based on an expectation of equal annual increment of earnings, whereas every engineer knows that in an oil-producing property we are confronted with the fact of diminishing annual returns with particularly rapid declines in the first few months.

After the net return from an oil-producing property is determined it should be discounted by one of two methods, in either of which the discount rate should be the simple worth of money.

Hazard

Hazard is a factor which has no place in a discount for present worth. If there is a hazard factor in the appraisal it should be cared for in either the estimation of recoverable oil or in the gross value forecast. For instance, if the engineer estimates that there will be recovered from a property 100,000 barrels of oil but that there is even a remote chance that he may not get that much, here is the place for the hazard factor to get its deadly work in. Let him discount his estimate 10%, 25%, 50%, whatever may be necessary. If again he has estimated that there will be received for the oil $2.00 per barrel, but believes that there is a chance that he may not, discount again for hazard, such percentages as may be necessary. Anyway, if he is interested in arriving at the true value of the property under consideration, keep the present worth discount factor strictly where it belongs and within proper limits, which factor, as I have said, is the simple worth of money.

Petroleum engineers have been too prone to combine these two discount factors into one, when as a matter of fact they are utterly dissimilar and have no relation one to the other. Deferment is one thing, and risk or hazard quite another thing and the combination of the two into a relatively high discount factor is in effect piling up the hazard factor year after year long after risk has disappeared. This will result in an absurdly low valuation and if there is an attempt at compensation the appraisal is wholly unscientific and unsatisfactory.

Let us look again at our original statement: "An oil property may be said to be worth a given sum when there is a reasonable certainty that it will return that sum, plus interest, within a given time".

Interest Requirements

That is the usual formula and the modifications and the adaptations of it used by most engineers assume that the investor is entitled to the annual interest requirement for the full period of the life of the property regardless of the amount of capital return made in the earlier years of the investment. In other words, the property is required to pay interest on money already returned to the investor.

For instance, if a $100,000 property with a five-year life be required to return the investment with 10 per cent interest it means that the property must show total returns of $150,000 or that the present worth of the $150,000 net return property is $100,000, regardless of the time rate of return. Assume now that the property produces at the successive annual rates of 50, 25, 12½, 7½ and 5 per cent The proper interest charges would be $10,000 for the first year because the full capital of $100,000 is employed. The second year the interest charge should be only $5,000 because $50,000 was returned in production the first year and only $50,000 left at risk in the business, and so on in succeeding years $2,500, $1,250 and $500 or a total interest charge against the investment when properly figured of $19,250.

By this method, which I contend is

the proper one, a property with an ultimate net return of $119,250 has a present worth of $100,000 when figured at the same 10 per cent discount rate.

The example used is somewhat exaggerated, of course, but you may be sure that the analogy holds.

Speculative and Hazardous

I think, perhaps, that the best method of discounting for present worth and the one best fitted to cope with the present temper of the oil-producing business, is to assume that inasmuch as it is a highly speculative and hazardous one the investor should, from the first returns from the property, regain his capital invested, all owing interest to accrue compounded annually, and to be paid from earnings after the investment is returned.

All this in the matter of discounts leads to one or two thoughts which I would leave with you.

1. Discount for hazard is in no way related to discount for deferment, and the two should never by any chance be connected.

2. Discounts for hazard should be taken into account in the place the hazard occurs, that is in the estimation of reserves, the gross return or the expense computation.

3. Discount for deferment should be based on the time the invested capital is actually employed in the property. There is absolutely no justification for a redemption or sinking fund.

The Human Element

And in the valuation of oil-producing properties generally one very important factor must never be overlooked by the appraiser. That is the general character of the proposed operator of the property. The personal equation. While there is undoubtedly inherent intrinsic value in a property, it may take careful operation to develop it. I know one operator in Oklahoma who makes money out of properties that more than half the others would lose on.

The basis of value of all the oil business in the world is the supply of crude oil. Without a constant supply of raw material to work on, all the great refineries, the tremendous marketing and distributing systems would of necessity fall down.

It would seem that with this condition, which, of course, must be well known to the executives and directors of our oil companies, active steps would be under way to know about how much crude oil could be depended upon and just where the available supply was coming from. Some boards are doing this, but it is as yet far from the general practice.

It would be inconceivable that a flour milling company would operate for even a short season without having set out on its books the quantity and value of what is in its bins, and, too, as drafts were made on the supply and as new grain was purchased to replenish that milled and sold, accurate accounts would be kept and these accounts checked by periodical inventories. Adjustments would be made in the accounts so that at any time the executives and directors could tell within reasonable limits just how much raw material was on hand as well as its value.

Is it not true that if such a practice obtained in the oil business it would tend to stabilize it, give it dignity, and be generally desirable? I am sure that you agree with me that it would be a good thing. So, then, why not adopt this perfectly feasible and desirable practice?

JOHN H. MORAN

Having been actively engaged in the oil supply business since 1909, John H. Moran of Tulsa, general sales manager of the International Supply Company, almost literally has grown up in the game. His appointment as general sales manager of the International became effective October 1, last. Prior to that time he was district manager for the company in the Rocky Mountain region with headquarters in Casper, Wyoming, having come to the International from the General Supply Company the Lucey distributing agency in that territory. Mr. Moran began in the oil business in 1909 at Coalinga in California and was associated with different supply companies on the Pacific Coast until the war. After the war he went to Ranger in West Texas for the Lucey Manufacturing Corporation and remained there from 1919 to 1921. In the same year he went to Wyoming for the Lucey organization and he has remained in the Rocky Mountain territory until his recent removal to Tulsa.

Market Structure Firming for Advance

(Continued from page 21.)

as development progresses, and both crude and refined markets began shaping themselves in the North Texas district late last week for an advance in prices. Crude solicitors have been especially active during the past week for major companies and independent refiners throughout the North Texas district, and the latter are boosting their premium offers in order to build up large crude stocks before the anticipated advance in posted price takes place. The Texas Company is becoming more aggressive for crude connections, and is speeding up the work of extending its gathering line to South Archer and North Young County fields. Humble has been setting the pace for the major companies on tieing up new crude connections in Wichita, Archer and Wilbarger Counties and now ranks among the largest buyers in the North Texas district.

Gasoline and fuel oil prices developed strength during the past week, and about three million gallons of motor fuels were purchased by the Atlantic Refining Company from North Texas and Shreveport refineries for delivery to its export station at Atreco, near Beaumont. Gulf Refining Company is also making purchases from North Texas refiners to meet its increasing demand for gasoline. The demand for fuel oil has held firm almost continuously since the arrival of cold weather, and some of the refiners are quoting fuel prices above the posted price of crude.

As Oklahoma is recovering from the two weeks' seige of cold weather the production for the major fields continues to be on the downward grade and operators are of the opinion that the 30,000 barrels loss of the past two weeks will not be regained. With a possibility of rapid decline in the daily average production, the smaller refiners are putting forth every effort to purchase as much oil as possible to meet the requirements and few are left out of the premium paying group. While these smaller refiners are vying with each other in Oklahoma crude circles, the major factors are giving their attention to Wortham and as a result of this several pipe line connections have been lost by the larger companies.

With no large potential pools in sight for the state of Oklahoma operators are expressing doubt as to whether the few small pools recently found in Lincoln and Pawnee Counties will be sufficient to offset the loss in the major producing pools such as Cromwell and the deep sand area at Tonkawa.

R. D. BUSH

State Oil and Gas Supervisor of California. —Curtis photo, Los Angeles.

Concave Derrick Floor An Economy Appliance

M. "Bink" Manning of the production department of the Humble Oil & Refining Company, has laid out plans for a concave derrick floor which he believes will eventually mean a great saving to the lease operator. The purpose of the floor, which is made of concrete, is to save crude wasted when tubing is pulled or when a leak occurs in pipe fittings above the floor, to lessen fire hazard, to tend to keep the derrick floor clean and eliminate extra expense incurred in buying small pumps to pick up wasted oil from pits near the derrick.

As the accompanying sketch illustrates, the concrete is poured and worked into a concave shape on heavy paper covering the wood planking. A slope from the outer edge of the derrick allows oil spilled on the floor to gravitate toward a strainer covered drain. The drain pipe is connected to the well casing beneath the derrick floor, as shown in the drawing. A cap screwed on the under side of the "T" which houses one end of the horizontal connection between the drain and the casing makes it possible to clean the drainer by removing one fitting. A flat head water cock between the casing and the drainer allows operators to exclude any undesirable fluid from the well that may have accumulated on the floor. The cock may be reached with a key from the derrick floor by inserting the key through a two-inch nipple projecting through the cement and wood planking

Mr. Manning is planning to improve the floor by allowing the oil to drain into a small pit near the casing head. The drain will be placed in the pit bottom. This will allow a steeper concave, a quicker drain and lessen the probability of accidents, he believes.

New Frick-Reid Manager In Rocky Mountain Section

Denver, Colo., Jan. 5.—George D. Paine has resigned as district manager of the Frick-Reid Supply Company in the Rocky Mountain region with headquarters at Denver, to become effective February 1, 1925. He has been with the company for a number of years, having been district manager for Frick-Reid at Ardmore, Oklahoma, before coming to this section.

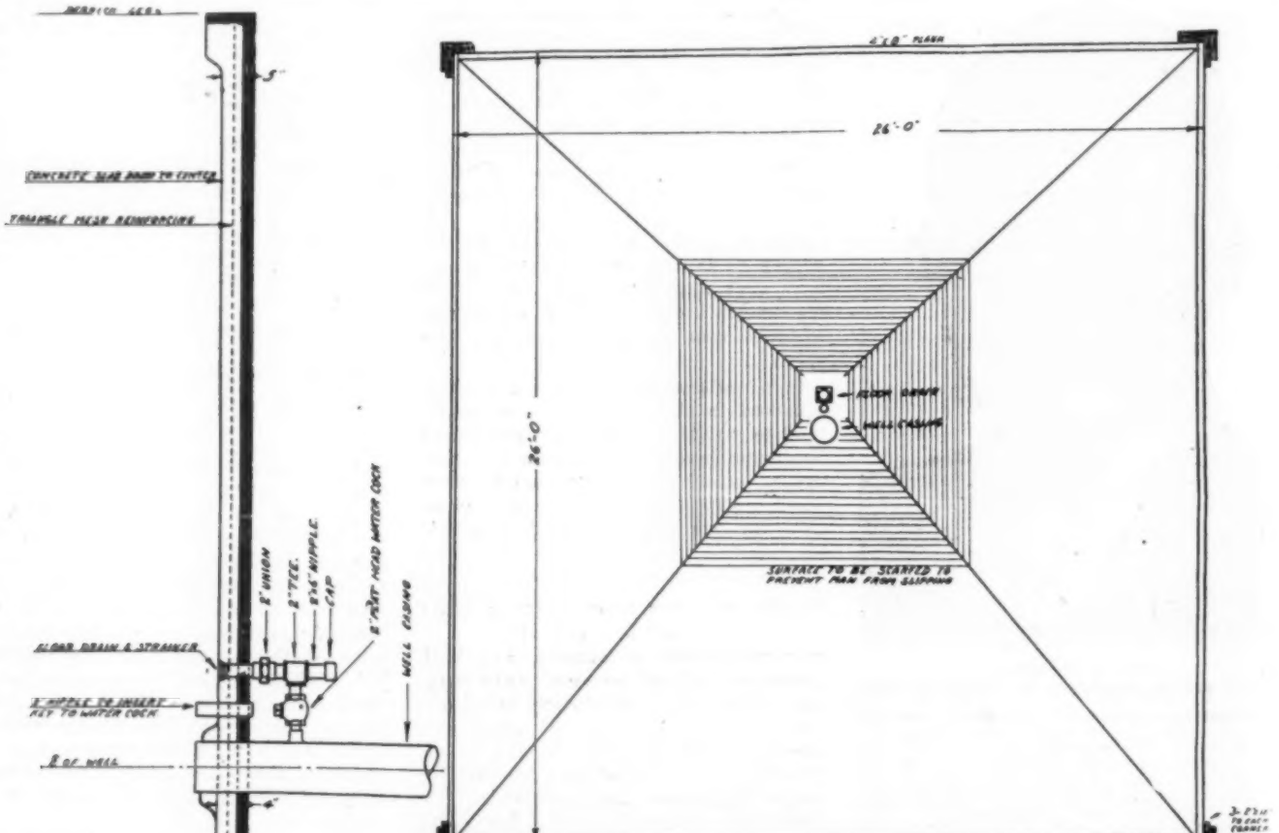
Mr. Paine will be succeeded by C. E. Dowd, who has been assistant district manager and who is thoroughly familiar with conditions and the trade in this territory. Mr. Dowd also has been with Frick-Reid for a number of years.

Oklahoma Field Men Go To Foreign Fields

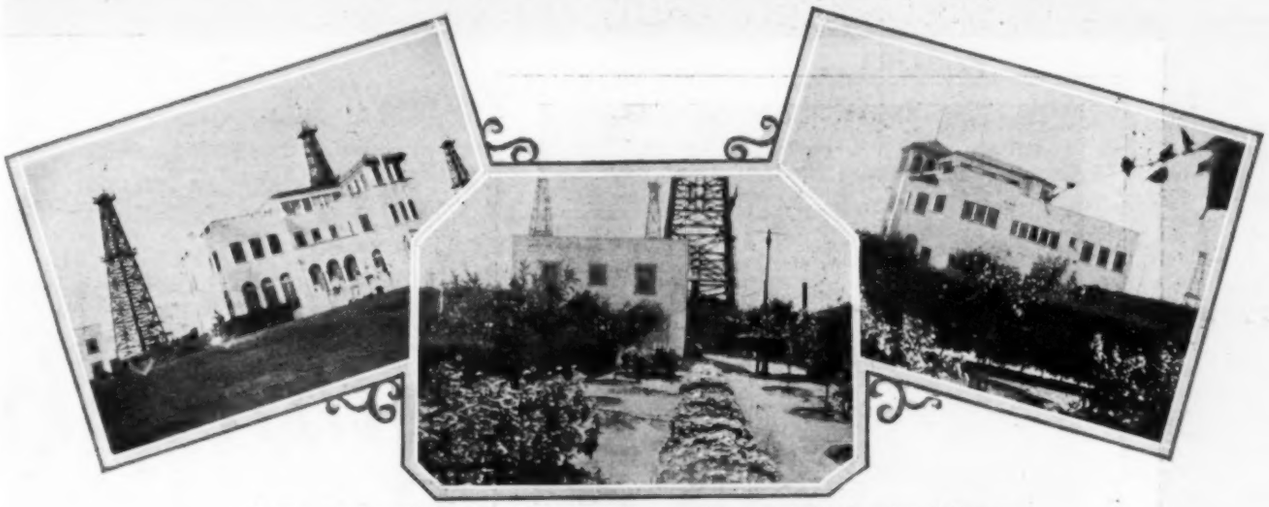
Tulsa, Okla., Jan. 5.—Nine drillers, tool pushers and rig builders applied here this week for passports to Venezuela, where they will be in the employ of the Gypsy Oil Company.

The number of applications for passports to Venezuela, Argentine, Burma, Budapest, Siberia and Java which have been numerous during the past month, is an example of the increased operations now under way in foreign countries. All of the men seeking passports last week were said to be well experienced and skilled workmen and have had much experience in the Mid-Continent fields.

William Boyd of New York, has been elected a director and a member of the executive committee of the Lago Petroleum Corporation, succeeding James E. Whitney, who has tendered his resignation.



Novel idea for concrete derrick floor, designed to save oil wasted when tubing is pulled, to eliminate "pick up" pumps, to lessen fire and accident hazards and to assist in maintaining cleanliness around the rig.



Italian Villa on Signal Hill, California, turned into home for Shell Company field men.

Fine Italian Villa on Signal Hill Home of Shell Company Field Men

By W. E. Green
Staff Representative

IN the California oil fields, the old time oil man from Pennsylvania, from Oklahoma, the muddy flats of Arkansas and other oil sections of the world can find many things unusual.

He finds derricks erected among the orange trees and men on the floor have been seen to reach out and pluck an orange from a loaded tree. But the oil field worker of California soon tires of oranges. They grow in too great confusion.

But staff men employed by the Shell Company of California go the orange fields one better.

They are housed in a beautiful mansion on the topmost point of Signal Hill, almost completely surrounded by derricks and producing wells. From this mansion they can see for miles in every direction. On clear days they have a perfect view of the Los Angeles Harbor, the beautiful city of Long Beach, the Long Beach harbor, the Santa Fe Springs oil field in another direction. And to complete the picture, the grounds of the beautiful mansion are a profusion of grassy plots, shrubs of every kind, flowers everywhere, fruit trees, etc.

This mansion, an Italian Villa, was built by Andrew J. Palla long before oil was found on Signal Hill. As the story goes, the mansion had its wine cellar, spacious grounds, winding roads, approaching its emminence, and everything that heart could wish for.

Oil was found. Derricks sprang up on all sides. The peaceful vicinity was given over to the song of the drill, the hiss of steam from the oil field boilers, the chug chug of the truck crawling almost at snail's pace up the steep grades, loaded with casing and other oil field supplies. The nearby oil wells as they came in with a roar throwing the greasy dirty fluid in every direction, sprinkled the beautiful lawn and spattered the walls of the mansion. This was too much for Mr. Palla. His dreams were not coming true. The peace of his home surroundings was destroyed.

But his land had oil under it. Oil companies quickly secured leases. The drills went down. He was able to secure a good price for his holdings, including his home—and the cellar. The Shell Company purchased the plot of ground upon which is located the mansion. Mr. Palla hungered for a sight of old Italy. He and his family made a trip back to the old country. Oil wells furnished much of the money—at least a part of the expenses.

In the early days of Signal Hill, or Long Beach, as the field is called, the General Petroleum Corporation's Black and Drake well came in with a roar, covering the land thereabouts with oil, mud and water. The mansion was splattered. It did not look so imposing. Then a big fire started in the vicinity. They used dynamite in an effort to snuff out the flames. The shock cracked the plaster, and otherwise damaged the mansion—but not beyond easy repair.

Since that time it has been repainted and refinished, inside and out. The grounds have been brought back to their original splendor. It is used as a residence for the bachelor members of the Shell Company's field staff. A housekeeper is in charge and a waitress completes the meal-time picture. The large living room is cosily furnished, large easy chairs are about, and in one corner, near the large fireplace, is a radio set built and assembled by those who live in the mansion. It is a complete home.

Recently the writer visited Signal Hill and was shown through the mansion by H. J. M. vander Weerd, a civil engineer who hails from The Hague and who is in this country making a study of the oil business. He has taken many pictures of his "oil field home" for his friends "back home". He fears that they might not believe his written word, but he wonders if they will doubt his pictures, as the pictures accompanying this article were taken by the writer, Mr. vander Weerd can be seen seated on the small porch. With him is R. D. Bare, gauger clerk. Both were proud of their home.

And this is the story of the mansion, or rather Italian Villa, perched upon the topmost point of Signal Hill, surrounded by the oil derricks.

Wha knows what the history of the mansion will be in the coming years. Many of the Signal Hill wells are now on the pump. Their production is slowly declining.

If one could see into the future, say 25 years, the mansion may once more be the home of a family, with children playing about. The parents at night time will tell the small children the story of their home, how years ago it was surrounded by oil wells, how angry flames had burned oil wells, how dynamite was used to snuff out the flame. They may point to cracks still visible as reminder of the wild days years ago.

But for the present, Shell Company staff men have the unique experience of living in a complete Italian Villa in the midst of the derricks, and spend their late afternoons musing and looking miles into the distance with the waters of the Pacific lapping the shores of the beautiful city of Long Beach

"Bert"

Ethically Speaking

We are honestly convinced of the merit of the article which we offer—that it is well made and fairly sold.

We believe in the innate fairness of all our customers. When complaint of any kind is made there must be a basis justifying our consideration and demanding a remedy.

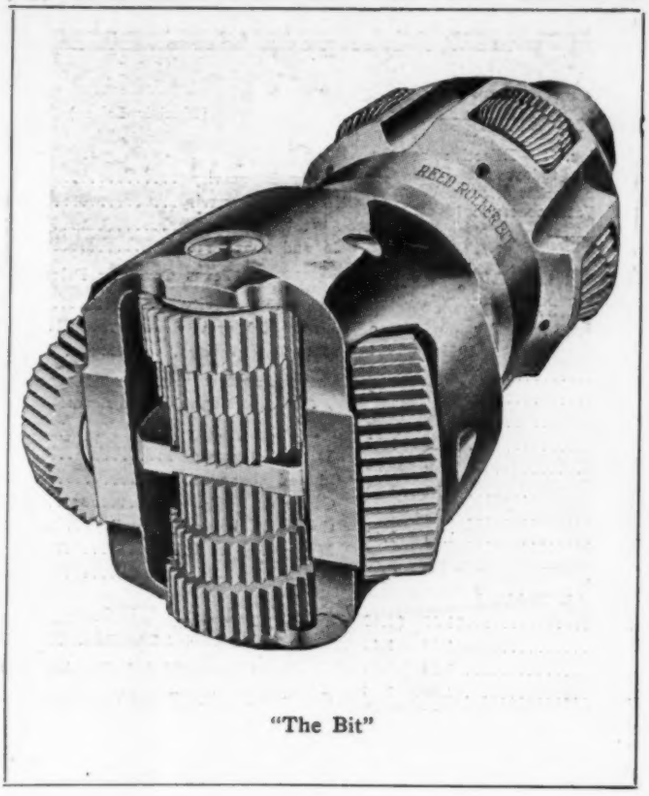
We pledge our time and attention to the end that the man "on the job" may have better tools to do a better job, thus better serve the interest of all.

W. L. "Bert" Childs, Vice President and General Manager

Reed Roller Bit Co.

Houston, Texas

Which Is to Say—



"The Bit"

Boys, we've a bunch out here in the shops who "know their stuff" when it comes to making good tools, and those hounds of ours out there in the field know how to peddle 'em.

But there's a lot of times when things go "blooey" and tools just won't make hole. Then's when we want to know about it—get on the derrick floor with you—and work her out.

And when we say we'll be there we "don't mean maybe."

W. L. "Bert" Childs, Vice President and General Manager

Reed Roller Bit Co.

Houston, Texas

CRUDE OIL PRICE QUOTATIONS FOR ALL FIELDS

Crude Price Changes

Columbus, Ohio, Jan. 3.—Effective at the opening of the market today, the Ohio Oil Company advanced the market price of Wooster crude 10 cents, and Waterloo crude 15 cents.

Current Postings

EASTERN STATES

	Jan. 9 1925	Jan. 9 1924
New York Transit	$3.10	$3.25
Bradford (Pa.)	3.10	3.25
Other Pa. Grades	3.00	3.00
Cabel	1.45	1.35
Ragland	.90	.75
Corning	1.50	1.40
Somerset, medium	1.55	1.30
Somerset, light	1.70	1.45

CENTRAL STATES

Illinois	$1.37	$1.42
Indiana	1.38	1.43
North Lima	1.58	1.63
South Lima	1.58	1.63
Plymouth	.75	.80
Princeton	1.37	1.42
Waterloo	.90	.90
Wooster	1.50	1.50

WESTERN KENTUCKY

Posted by Indian Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, Cumberland and Monroe Counties

36 and above	1.30	...
33 to 35.9	1.20	...
32.9 and below	1.10	...

CALIFORNIA

(Crude oil prices at well)

Los Angeles and Orange Counties

14 to 19.9 gravity	$1.00	$ .60
20 to 20.9 gravity	1.01	.61
21 to 21.9 gravity	1.02	.62
22 to 22.9 gravity	1.03	.63
23 to 23.9 gravity	1.05	.64
24 to 24.9 gravity	1.07	.65
25 to 25.9 gravity	1.10	.66
26 to 26.9 gravity	1.13	.67
27 to 27.9 gravity	1.16	.68
28 to 28.9 gravity	1.19	.69
29 to 29.9 gravity	1.22	.70
30 to 30.9 gravity	1.25	.71
31 to 31.9 gravity	1.28	.72
32 to 32.9 gravity	1.31	.73
33 to 33.9 gravity	1.34	.74
34 to 34.9 gravity	1.37	.75
35 gravity and above	1.40	.76
Fuel Oil	1.40	...

Rosecrans Field

36 to 36.9 gravity	$1.46
37 to 37.9 gravity	1.52
38 to 38.9 gravity	1.58
39 to 39.9 gravity	1.64
40 to 40.9 gravity	1.70
41 to 41.9 gravity	1.76
42 and above	1.82

MID-CONTINENT

(Prairie Prices)

Below 30 gravity	$ .75	$ ...
30 to 32.9 gravity	.90	...
33 to 35.9 gravity	1.10	...
36 and above	1.25	...

(Sinclair Prices)

	Jan. 9 1925	Jan. 9 1924
Below 30 gravity	.75	...
30 to 32.9 gravity	.90	...
33 to 35.9 gravity	1.10	...
36 and above	1.25	...

(Texas Company Prices)

Below 30 gravity	.75	...
30 to 32.9 gravity	.90	...
33 to 35.9 gravity	1.10	...
36 and above	1.25	...

(Magnolia Petroleum Co.)

Below 30 gravity	.75	...
30 to 32.9 gravity	.90	...
33 and above	1.25	...
Corsicana, light	1.25	...
Corsicana, heavy (at wells)	.90	...
Mexia	1.25	...
Thrall	1.00	...

NORTH CENTRAL TEXAS

(Humble Oil & Refining Co.)

Corsicana, light (Powell)	1.25	1.25
Mexia	1.25	1.25
Currie	1.25	1.25
Richland	1.25	...
Wortham	1.25	...

RANGER

(Humble Oil & Ref. Co.)

30 and below	.75	
30 to 32.9	.90	
33 to 35.9	1.10	
36 and above	1.25	

WICHITA AND ARCHER COUNTIES

(Texas)

(Humble Oil & Ref. Co.)

30 and below	.75	
30 to 32.9	.90	
33 to 35.9	1.10	
36 and above	1.25	

Moran Crude

30 and below	.75	
30 to 32.9	.90	
33 to 35.9	1.10	
36 and above	1.25	

SOUTH TEXAS

Mirando (Texpata)	.80	.75
Mirando (Magnolia)	.75	...

SOMERSET

(Grayburg Pipe Line Company)

26 gravity and above	.95	...
Below 26	.85	...

GULF COAST

Grade "A"	1.50	...
Grade "B" at Blue Ridge, Hull and Pierce Junction	1.25	...

LULING

All gravities	.90	...

LOUISIANA-ARKANSAS

Caddo

	Jan. 9 1925	Jan. 9 1924
38 gravity and above	1.35	...
35 to 37.9 gravity	1.25	...
32 to 34.9 gravity	1.15	...
Below 32 gravity	1.00	...

Homer

35 gravity and above	1.10	...
33 to 34.9 gravity	1.00	...
31 to 32.9 gravity	.90	...
Below 31 gravity	.75	...

COTTON VALLEY

All grades	.95	...

Haynesville

33 gravity and above	1.00	...
Below 33 gravity	.90	...

Bull Bayou

38 gravity and above	1.15	1.20
35 gravity to 37.9	1.00	1.05
32 to 34.9 gravity	.85	.90
De Soto crude	1.20	1.25
Crichton	1.00	1.05
Bellevue	1.35	.90
Jennings	1.50	1.25
Vinton	1.50	1.25
Edgerly crude	1.50	1.25

Smackover

Standard Oil Company of Louisiana
Louisiana Oil Refining Corporation
Gulf Refining Company
Shreveport-El Dorado Pipe Line Company

25 gravity and above	$ .95	...
Below 25 gravity	.85	...

Texas Company

25 gravity and above	$ .95	...
Below 25 gravity	.85	...

El Dorado

33 gravity and above	1.00	...
Below 33 gravity	.90	...
East Field (Calion)	.85	...

Stephens District

26 gravity and above	.90	...
Below 26 gravity	.70	...

WYOMING-MONTANA

Wyoming

Elk Basin	1.20	.95
Grass Creek	1.20	.95
Rock Creek	.95	.60
Lance Creek	1.15	.90
Mule Creek	.60	.45
Big Muddy	.75	.45
Salt Creek	.85	.60
Osage	1.15	.90
Hamilton Dome	.80	.95
Pilot Butte	.75	1.10
Lander	.20	1.10
Torchlight-Greybull	1.15	.95

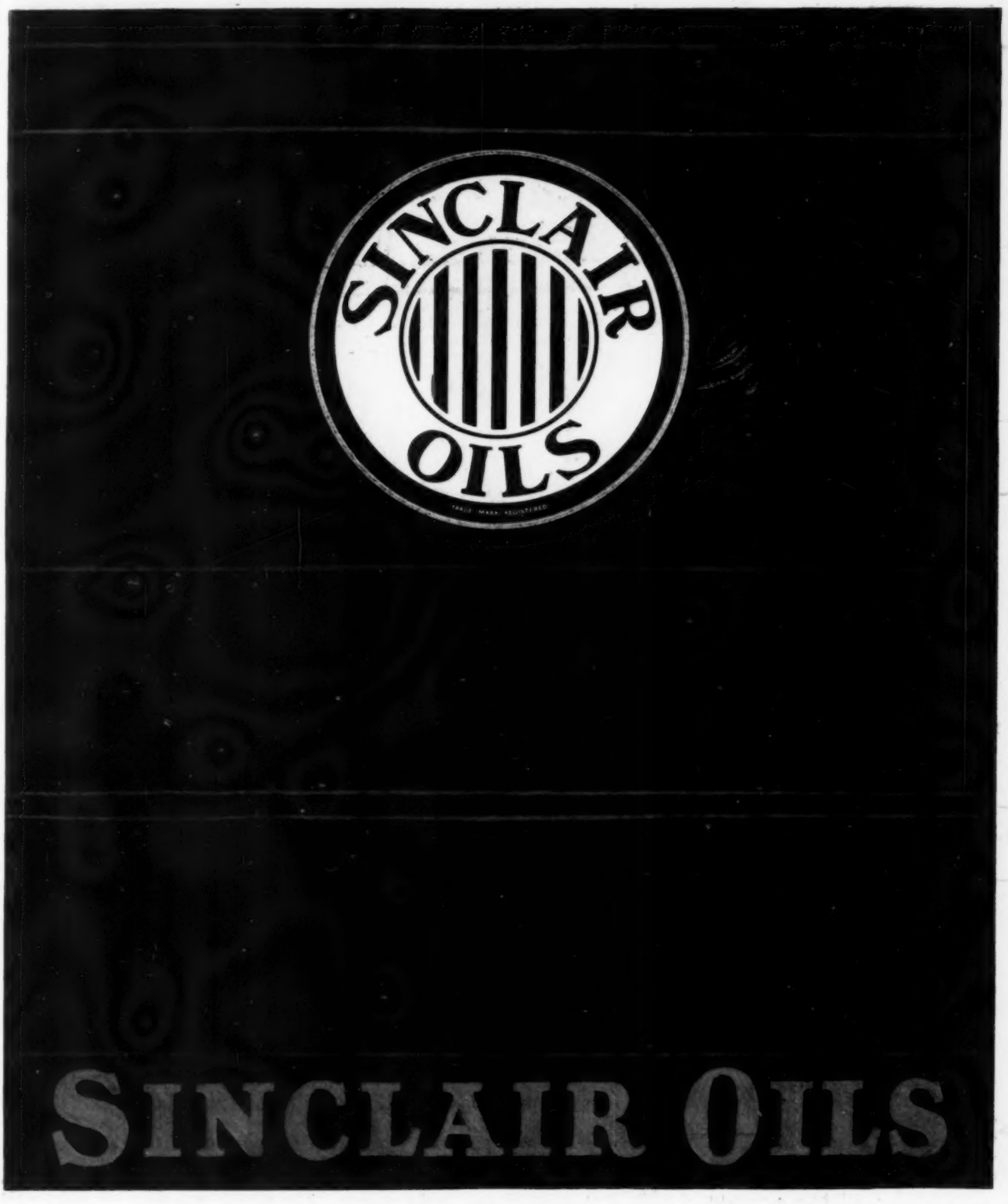
Montana

Sunburst	.90	70
Cat Creek	1.20	95

CANADIAN CRUDE*

Oil Springs	2.30	2.18
Petrolia	2.23	2.25

*Bounty on Canadian crude is ¾ cent per gallon, or 26¼ cents per barrel.



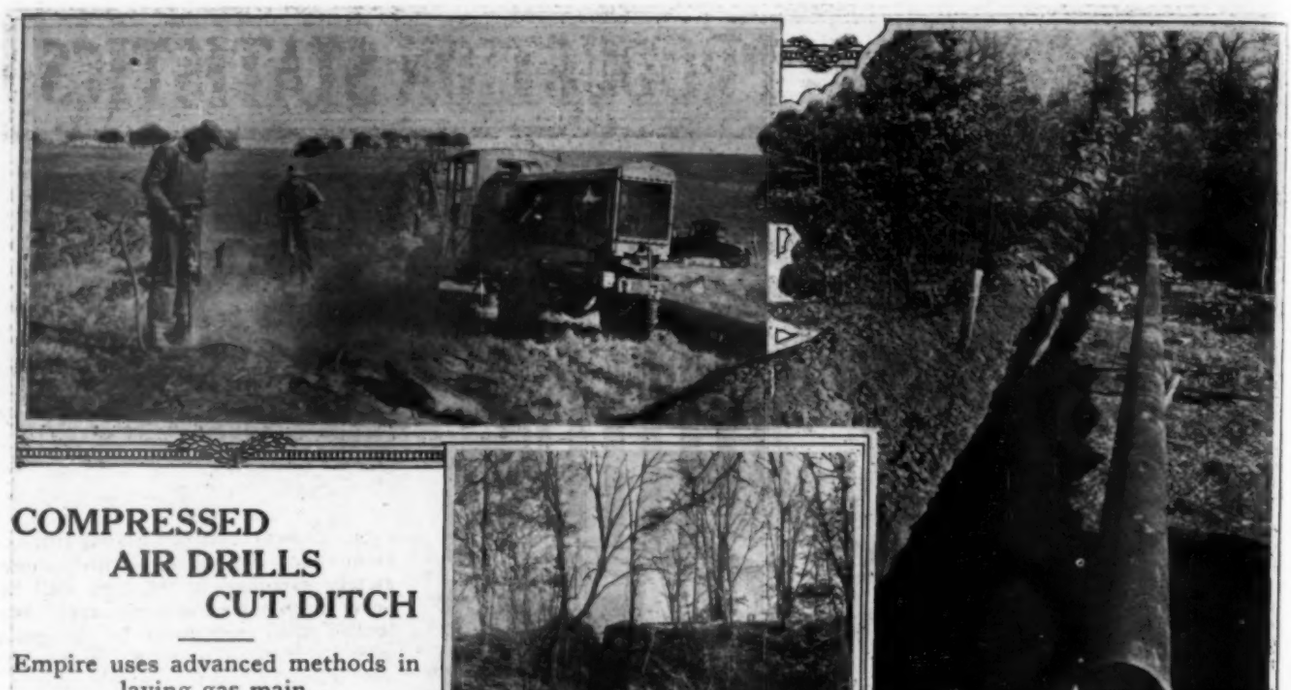
ONE of our responsibilities, represented by the Sinclair trade-mark, is to maintain a supply of crude oil which amply protects our sale of refined products. This is done through our affiliated companies, and gives our customers a feeling of security that their orders will be filled promptly.

SINCLAIR REFINING COMPANY

New York: Sinclair Oil Bldg., 45 Nassau St. **Chicago: 111 West Washington St.**

Cable Address: "Lucent"

Say you saw it in The Oil Weekly



COMPRESSED AIR DRILLS CUT DITCH

Empire uses advanced methods in laying gas main.

IN making a ditch for the new gas main of the Natural Gas division of the Empire Companies from the Burbank field to Myers Junction, compressed air hammers were used for penetrating rock.

At many points along the route of the line, rock formations covered the surface. It was in these instances that a portable Ingersoll-Rand compressor was used to accomplish ditching. The compressor was moved to the desired point and air hammers put in the hands of workmen.

The rock was so bothersome at some points, that blasting was adopted to provide the ditch. In such instances, the rock was drilled to the bottom of the bed, so charges of explosive could be planted. Compressed air power was used for this.

While much trouble was experienced with rock formations, the workmen had to deal with the other extreme in surface conditions, that of swamps. In one section, that of crossing Bird Creek the ditch had to be dug to a low level to allow the pipe line itself to lie on the river bed, so it carries no swing, or is not likely to have the river wash the earth loose from beneath it. This necessitated an unusual amount of extra precaution in laying the line.

The new line will have a capacity of between 15 and 20 million cubic feet of gas a day and will add materially to the Empire Companies' supply for winter consumption.

The addition of this line adds to the flexibility of the natural gas system of the Empire Companies as it offers another outlet for Burbank gas and protection to the consumer in case of line breaks on other parts of the system.

The new pipe line is the largest extension of welded line on the Empire's system. The problem which had to be considered in the construction of the pipe line was the necessity of taking care of the expansion and the contraction of the line, to prevent any possible chances of a break in the line during the colder months. Therefore, in building this line the policy of "crowding as much line into the ditch as possible" was followed out. Solid sleeves also were used at points to take care of the contraction and expansion of this line.

Upper left—Cutting rock with the pneumatic drill.
Upper right—Ditch finished in rock.
Below—Stream crossing.

Simms Building Electric Power Plant at Wortham

Dallas, Tex., Jan. 5.—The Simms Oil Company is erecting an electric power plant in the Wortham field to furnish electricity for power in pumping its wells and lighting its leases, field camps, and other purposes. This plant wil be the first attempt made by an oil company to manufacture electric power for pumping wells in the East Central Texas district, but is not the first in the state, as a number of plants are in operation in the Gulf Coast fields. Electric power supplied by the Texas Power & Light Company was used extensively for pumping wells in the early pumping days of the Corsicana-Powell field, but the high rate charged for the electricity caused a number of companies to switch to gas and oil engines after the wells began making a high percentage of water. The results obtained by Simms in manufacturing its own power will be closely observed by other major lease owners in the Wortham field, and it may lead up to more plants being erected.

A central location has been acquired on the Roy Simmons farm by Simms Oil Company for its electric power generating plant, and concrete foundations have been poured. Equipment is now enroute and plans are to have the plant ready for operation before completed wells and wells now nearing the pay sand reach the pumping stage. Three 150 horse power and one 200 horse power oil engines, having direct generator connections, are to be used in the plant, and the average production of the plant will be 2300 volts. Transmission lines are now being extended to the various leases, and transformers placed to step down the current for the pumping motors and also for lighting purposes.

FIELD NOTES AND PRODUCTION STATISTICS

Gas and Oil Showings in Rosecrans Tests

One well blows out at 4908 feet while another makes lots of gas at 5248 feet—oil show reported at 6595 feet

By W. E. Green
Staff Representative

Los Angeles, Calif., Jan. 3.—The Rosecrans field has never made much of a show in the production column, but millions have been spent in development work, and indications this week were that the field may yet prove productive. Gas blowouts and oil showings at extreme depths have the operators wondering—and they keep the drills going still deeper and deeper.

Early in the week, the Sentinel Oil Company's Brown 1 in the northwest area blew out at 5248 feet, throwing mud, water, a little oil and about 10,000,000 cubic feet of gas to the four winds and painting the landscape. A water test was being made at the time, and the test was not sufficient to prove how much oil would come from the hole. The very heavy gas pressure was mudded down and further work will be done before a production test is made.

Sand at 5142 Feet

Late in the week, E. J. Miley's Athens 1, a mile north and west of the Union's first producer in the field, picked up a likely sand at 5056 feet. This well had been producing from 4947 feet, starting out at about 1200 barrels and declining to about 400 barrels, when it was killed to drill deeper. The sand pinched out at 4996 feet, but was picked up again at 5056 feet and continued to about 5142 feet. They are coring ahead carefully and expect to recomplete next week.

Marine Oil Company's No. 31, about half a mile north of Union's first producer for the field, ran into a gas pocket at 4908 feet, which made 10,000,000 cubic feet of gas with a tubing pressure of 600 pounds. The well Thursday caught fire twice from friction, once in the sump and again at the waste line from the trap. The fires were easily extinguished. There was no oil showing. It is expected it will be killed and drilled deeper, and is fully expected to be a producer.

Oil at 6595 Feet

The General Petroleum so far has the blue ribbon for finding oil sand at the greatest depth, having found a sand that tests oil at 6595 feet, in its Amstoy 1 on the west line of the field, offsetting the Union's Trust I, which has reached the depth of 5775 feet and water broke in, forcing a recementing job. Bottom of hole is at 5801 feet, with several oil showings having been reported. That the well will be some kind of a producer is fully expected. The Union's Gordon 1 to the extreme southwest has reached a depth of about 5800 feet without any encouraging showings.

The Associated's Brockley in the high gravity oil area tested for 500 barrels most of which was water at 5003 feet, and a recementing job is now underway. The Standard's Cowan in the northeast section of the Rosecrans area has reached a depth of about 5600 feet and has never had a showing of any kind, thus marking the northeast limits of the field. It is not known just how deep the Standard plans to go before quitting.

Pumping 300 Barrels

The Mohawk well in the Inglewood area, which extended the field about two miles, was placed on the pump this week. The first six hours after going on the pump, the well made a good head and produced 300 barrels in that time. Friday it was pumping at the rate of 300 barrels of about 18 gravity oil, with a very low gasoline content.

The Hesperia wildcat near Victorville has been causing a lot of talk the past three weeks, but the rumors were set at rest early this week when the cement was drilled out at 2940 feet, and a large flow of water resulted with no oil showing at all. It is understood that the hole will be drilled deeper. This test is in San Bernardino County, in the desert.

New Marland Wildcat

Another interesting wildcat was started this week, when the Marland Oil Company of California spudded a test to be known as Davidson City 1, about midway between Signal Hill and Dominguez Hill. The territory immediately surrounding the new well has never been tested and has never been looked upon with favor by the geologists. But the Marland has been rather successful in California, and only the bit will tell the story.

The daily average production of the Los Angeles Basin fields the past week declined about 2300 barrels. Long Beach was down to about 124,800 barrels, while Dominguez was up to 62,500 barrels daily average for the week. Huntington Beach has remained steady for the past three weeks at 42,000 barrels and Torrance is showing a very gradual decline.

No Big Decline Expected

The concensus of opinion seems to be that the production in California will hold rather steady throughout the year 1925. No big flush fields are expected, but the older fields will likely hold their own and enough new production furnished to take care of the declines. About 26,000 barrels of production shut in in the state will likely be opened in the summer when the demand grows.

Good Well South of Liberty Opens New Field—Pierce Junction Has Big One

Houston, Texas, Jan. 7.—The lull in coastal activities was broken during the past week by the completion of two producers, one of which opens up a new area for development in Liberty County while the other is expected to double the daily output of Pierce Junction.

The first well was completed January 2 by Winfre et al, Liberty operators, on the five-acre Pickett tract, about three miles south of Liberty. Total depth of the hole was 3425 feet. Initial production of the well, which is now making 700 barrels of 22 degrees gravity oil per day, was 800 barrels.

On the strength of findings in the Winfre well, the Gulf, Sun, Humble and Texas companies, landholders in the area, are expected to inaugurate drilling campaigns there soon. The Humble will drill four wells immediately.

In working over its Fitzsimmons 6 at Pierce Junction, the Texas Exploration Company got a 5000 barrel producer January 7. The well, which was originally drilled by the Humble, was a 35 barrel pumper until it sanded up recently. Two of the three screens in the hole had been removed when the well blew in, making better than 5000 barrels of fluid, about 50 per cent water. Late reports on the well stated it was flowing very little water.

Average Daily Production For All U. S. Fields

Oklahoma

Fields—	Past Week	Prev. Week
Tonkawa	100,500	100,500
Burbank	60,520	62,530
Bristow	50,285	50,590
Osage (outside Burbank)	35,825	36,000
Cromwell	34,615	37,475
Gilcrease-Papoose	28,950	30,740
Okmulgee	25,090	25,185
Cushing	22,965	23,185
Hewitt	17,955	18,000
Wewoka	12,100	13,085
Healdton	12,095	12,150
Otoe	8,750	10,600
Duncan and Walters	8,460	8,475
Stroud	2,640	3,360
Other fields	69,820	69,210
Totals	490,570	501,065

Louisiana

Haynesville	15,275	15,585
Caddo Light	9,010	9,485
Homer	6,975	7,045
Vinton	6,075	6,040
Cotton Valley	5,640	5,840
Bull Bayou	4,550	4,525
Bellevue	3,575	4,085
Caddo Heavy	2,275	2,225
Evangeline	750	575
Elm Grove	585	560
Lockport (Lake Charles)	500	775
Edgerly	510	510
Anse La Butte	20	20
Totals	55,740	57,270

Kansas

Greenwood	22,000	22,400
Eldorado	16,200	16,875
Rainbow Bend	8,000	7,590
Elbing and Peabody	7,820	7,940
Fox-Bush	4,600	4,800
Augusta and Douglas	3,000	3,020
Blankenship	2,690	2,720
Florence and Covert	2,320	2,335
Other fields	20,000	20,065
Totals	86,630	87,745

Arkansas

Smackover, Heavy	63,550	63,825
Smackover Light	29,710	28,500
El Dorado	10,410	10,460
Stephens	2,105	2,170
Irma	1,120	1,120
Totals	106,895	106,075

California

Los Angeles, Calif., Jan. 3.—The daily average production of the California fields the past week, compared with the previous week, with number of producing wells in several fields, was about as follows:

	Past Week	No. Prod. Wells	Prev. Week
Long Beach	124,800	505	128,000
Dominguez	62,500	39	60,000
Santa Fe Springs	52,500	346	52,500
Torrance	43 000	487	44,000
Huntington Beach	42,000	287	42,000
Rosecrans	6,900	15	7,500
Others	273 300		275,500
Totals	605,000		609,500

Wyoming-Montana-Colorado

Fields—	Past Week	Prev. Week
Salt Creek	45,470	45,780
Kevin Sunburst	3,375	3,750
Cat Creek	2,950	3 275
Rock River	2,800	3,200
Big Muddy	2,490	2,580
Grass Creek	2,420	2 780
Teapot	1,380	1,400
Craig	990	1,100
Lance Creek	880	850
Osage	350	350
Elk Basin	640	830
Fort Collins	615	685
Hamilton Dome	490	460
Miscellaneous	475	525
Poison Spider and Casper Creek	230	220
Florence	195	215
Lander	110	210
Byron	60	60
Pilot Butte	30	30
Greybull	20	20
Lost Soldier	4,190	5,470
Ferris	110	110
Total	71,270	73,900

Texas

NORTH-CENTRAL

Fields—	Past Week	Prev. Week
Wortham	80,000	60,900
Corsicana-Powell	57,440	59,375
Archer County	36,765	33,675
Mexia	20,600	20,850
Stephens County	15 640	15,635
Electra	16,475	16,995
Burkburnett	14,990	12,280
Richland	12,900	14,300
*Eastland County	10,945	11,090
Reagan County	9,230	8,950
Vernon-Wilbarger County	5,050	5,865
Young County	4,170	3,610
K-M-A and Iowa Park	3,715	3,130
Moran-Shackelford County	2,460	2,520
Currie	2,320	2,325
Mitchell County	1,915	1,535
Callahan County	1 575	1,545
Panhandle District	1,145	975
Brown County	905	865
Strawn-Palo Pinto County	695	675
Petrolia-Clay County	325	300
Coleman County	75	70
Thrall-Williamson County	55	60
Scurry County	45	45
Throckmorton County	30	35
Jack County	25	25
Totals	299,490	277,720

*Includes Ranger-Eastland and Desdemona-Gorman districts.

GULF COAST

Fields—	Past Week	Prev. Week
Hull	15,600	15,650
West Columbia	12,600	13 100
Orange	9,950	10,550
Goose Creek	9,100	9,300
Humble	6,950	4,400
Sour Lake	4,000	3,850
Batson	1 620	1,600
Saratoga	1,460	1,450
Damon Mound	1,225	1,225
Spindletop	1,150	1,160
South Liberty	700	....
Blue Ridge	640	665
Pierce Junction	570	370
Big Creek	220	150
Markham	200	100
Barbers Hill	130	140
Nacogdoches	110	110
Dayton	45	60
High Island	85	60
Totals	66,355	63,940
Luling	30,500	37,600
Mirando	13,500	13,000
Somerset	4,300	4,200
Misc. South Texas	1,215	1,110
Totals	49 515	55,910
Totals, Texas	415 365	397,570

Condensed U. S. Production for Twelve Months

(Stated in Barrels)

This table is carried each week by The OIL WEEKLY, and shows daily production average for each state or section. Figures for Oklahoma, Kansas, Texas, Louisiana, Arkansas and Mountain States are compiled by The OIL WEEKLY, while estimates for California and Eastern States are furnished by the American Petroleum Institute.

Daily average for month	*Mid-Continent	North Central Texas	Texas Coastal	Texas Total	Kansas	Okla.	Louisiana	Eastern States	Wyo. Mont. and Colo.	Calif.	Ark.	U. S. Total
January (1924)	685,540	243,120	75,085	334,485	67,815	374,605	59,125	108,000	144,735	698,965	114,255	1,900,985
February	729,933	254,180	81,131	362,849	68,183	407,568	59,449	104,500	141,775	675,425	114,726	1,934,476
March	762,684	284,874	78,567	388,221	69,864	407,946	55,783	97,800	128,352	650,790	119,869	1,917,023
April	777,590	276,595	76,755	380,005	71,015	429,980	54,740	101,250	127,700	649,825	128,750	1,943,270
May	763,320	267,475	74,175	374,915	71,490	424,355	60,655	103,800	127,770	640,930	148,630	1,952,545
June	799,230	260,785	74,335	375,310	74,265	464,175	62,660	105,750	125,735	628,400	157,165	1,993,465
July	815,830	254,665	75,445	378,365	81,545	479,620	63,855	107,175	124,305	620,175	148,655	2,003,695
August	861,640	254,520	75,700	377,045	85,765	521,355	62,595	107,000	123,895	619,200	142,740	2,037,890
September	886,650	253,243	76,953	366,197	86,758	546,647	62,162	107,622	117,345	611,500	131,343	2,029,580
October	855,823	247,222	75,713	359,861	86,884	521,717	62,493	106,600	107,270	605,660	123,235	1,972,902
November	851,733	248,467	71,648	369,621	86,031	517,237	66,117	106,375	91,205	594,000	119,893	1,950,478
December	873,344	267,065	65,437	385,410	88,065	518,213	59,602	106,875	83,472	606,875	111,402	1,959,917
January 3	876,690	299,490	66,355	415,365	86,630	490,570	55,740	107,200	71,270	605,000	106,895	1,938,670

*Includes North Central Texas, Kansas, Oklahoma.
NOTE—Wortham, Corsicana-Powell and Mexia production included in North Central Texas.

Imports of Petroleum at Principal United States Ports

The following represents the total imports of crude oil by months with the current month given by weeks:

	Atlantic Ports						Gulf Coast Ports					Total at
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	N. Orleans Baton Rge.	Port Arthur Sabine Pass	Tampa	Total	All Ports
October	365,000	292,000	1,194,000	536,000	816,000	3,203,000	988,000	1,330,000	380,000	50,000	2,248,000	5,951,000
November	223,000	395,000	1,194,000	576,000	757,000	3,145,000	1,478,000	1,000,000	551,000	111,000	3,287,000	5,432,000
December	474,000	574,000	1,243,000	606,000	1,024,000	3,917,000	2,019,000	1,832,000	933,000	259,000	5,043,000	8,960,000
January, 1924	398,000	531,000	1,060,000	376,000	949,000	3,314,000	1,295,000	887,000	689,000	15,000	2,936,000	6,250,000
February	520,000	527,000	639,000	458,000	771,000	2,865,000	1,558,000	1,284,000	525,000	195,000	3,562,000	6,427,000
March	802,000	734,000	1,243,000	502,000	1,668,000	5,049,000	2,346,000	1,689,000	1,116,000	301,000	5,257,000	10,281,000
April	653,000	664,000	1,371,000	407,000	1,067,000	4,162,000	1,641,000	1,492,000	510,000	68,000	3,711,000	7,873,000
May	693,000	618,000	1,368,000	264,000	1,329,000	4,272,000	1,398,000	1,308,000	884,000	169,000	3,759,000	8,031,000
June	515,000	466,000	1,864,000	292,000	1,026,000	4,163,000	1,769,000	1,079,000	685,000	145,000	3,678,000	7,841,000
July	375,000	260,000	1,971,000	179,000	1,114,000	3,899,000	1,418,000	1,211,000	579,000	153,000	3,361,000	7,260,000
August	463,000	400,000	1,958,000	468,000	788,000	3,945,000	1,857,000	1,210,000	547,000	80,000	3,694,000	7,639,000
September	437,000	193,000	828,000	330,000	878,000	2,666,000	1,090,000	1,350,000	605,000	87,000	3,132,000	5,798,000
October	606,000	299,000	1,140,000	402,000	546,000	2,993,000	1,027,000	1,190,000	492,000	130,000	2,839,000	5,832,000
November	851,000	375,000	2,047,000	709,000	1,108,000	5,090,000	1,695,000	1,631,000	404,000	85,000	3,815,000	8,905,000
December 6	194,000	134,000	361,000	50,000	90,000	829,000	303,000	367,000	42,000	50,000	762,000	1,591,000
December 13	382,000	.....	395,000	123,000	145,000	1,045,000	38,000	430,000	218,000	68,000	754,000	1,799,000
December 20	.....	.....	213,000	70,000	220,000	503,000	177,000	300,000	50,000	40,000	567,000	1,070,000
December 27	171,000	113,000	182,000	98,000	403,000	967,000	270,000	339,000	.....	.....	609,000	1,576,000

NOTE—Figures by American Petroleum Institute.

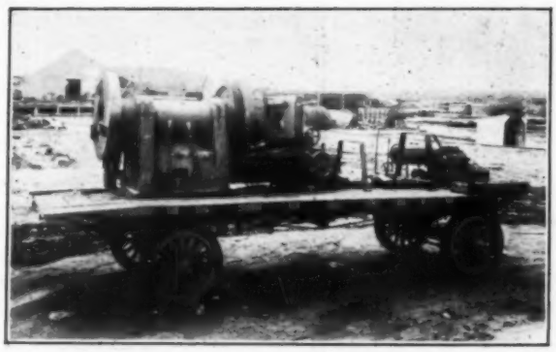
Receipts of California Oil at Atlantic Coast Ports

The following shows the receipts of California oil at Atlantic Coast ports by months with the current month given by weeks:

	Atlantic Ports						Gulf Coast Ports					Total at
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	N. Orleans Baton Rge.	Port Arthur Sabine Pass	Tampa	Total	All Ports
October	779,000	224,000	2,503,000	779,000	429,000	4,714,000	.....	746,000	.....	.....	746,000	5,460,000
November	591,000	155,000	2,302,000	584,000	271,000	3,903,000	.....	935,000	.....	.....	935,000	4,838,000
December	454,000	215,000	2,901,000	813,000	753,000	5,136,000	.....	729,000	.....	.....	729,000	5,213,000
January	619,000	77,000	3,156,000	659,000	503,000	4,660,000	.....	615,000	.....	.....	615,000	5,275,000
February	326,000	145,000	2,811,000	842,000	75,000	4,199,000	.....	810,000	.....	.....	810,000	5,009,000
March	298,000	77,000	3,352,000	989,000	413,000	5,129,000	.....	.....	.....	.....	.....	5,129,000
April	170,000	77,000	2,633,000	378,000	224,000	3,482,000	.....	.....	.....	.....	.....	3,482,000
May	190,000	147,000	2,771,000	411,000	273,000	3,792,000	.....	315,000	.....	.....	315,000	4,107,000
June	522,000	147,000	2,490,000	443,000	220,000	3,822,000	.....	.....	.....	.....	.....	3,822,000
July	167,000	70,000	2,017,000	374,000	188,000	2,816,000	.....	75,000	.....	.....	75,000	2,891,000
August	400,000	.....	2,914,000	288,000	520,000	4,354,000	.....	30,000	.....	.....	30,000	4,384,000
September	290,000	148,000	2,737,000	327,000	81,000	3,583,000	.....	.....	.....	.....	.....	3,583,000
October	378,000	217,000	2,338,000	379,000	160,000	3,472,000	.....	.....	.....	.....	.....	3,472,000
November	512,000	223,000	1,676,000	163,000	160,000	2,734,000	.....	.....	.....	.....	.....	2,734,000
December 6	70,000	.....	511,000	.....	.....	581,000	.....	.....	.....	.....	.....	581,000
December 13	382,000	.....	359,000	50,000	.....	409,000	.....	.....	.....	.....	.....	409,000
December 20	.....	74,000	363,000	80,000	81,000	598,000	.....	.....	.....	.....	.....	598,000
December 27	.....	.....	318,000	212,000	.....	530,000	.....	.....	.....	.....	.....	530,000

NOTE—Figures by American Petroleum Institute.

Standard pipe cutters and threaders



One of a number of Standard Pipe Threaders in use in the Texas fields. Photograph shows installation of Texas Pacific Coal & Oil Co., Thurker, Texas

Results are what count—Not Claims.

An oil field is not the place for a weakling—whether human or mechanical. Strength, durability, power, results are what is needed.

STANDARD WEILANDS have proven their rights for oil field work by many years of hard, practical experience.

It is a "roughneck" machine. Ruggedly built and simple in design it faithfully performs its work through every minute of the strenuous oil field day.

A Post Card will bring you our latest bulletin and a list of users.

Standard Engineering Co.
Ellwood City, Pa.

Production From Deeper Level Will Carry South Vernon Failures on Down

Wichita Falls, Texas, Jan. 6.—Another oil producing horizon was added to the South Vernon field, Wilbarger County, last week when Bridwell-Heydrick et al's W. H. Stephens 3 began flowing by heads at rate of about 300 barrels daily when an attempt was made to swab a sandy-lime pay at 2275-91 feet. This well failed to produce oil or gas from the usual pay levels, although it is located in the midst of the field, and its discovery establishes a new deep producing horizon for the field as well as the North Texas district, as a sandy-lime at 2170-75 feet in the South Electra field has heretofore been the deepest oil horizon. The casing seat gave way on the string of 5 3/16-inch casing set on top of the pay in Bridwell & Heydrick's deep producer, and an effort is now being made to re-set to shut off water. The strike made by this test will result in the deepening of other tests that recently proved dry in the regular pay levels on the north, west and south edges of the field. Bob Waggoner et al's Bond 1, located on the south end of the field and dry in the regular producing horizons, is reported to have encountered the 2275-foot pay early this week, and will set casing to test.

Bridwell-Heydrick et al's S. A. Dill 2, located north of the same interests' deep producer, is flowing by heads from sand at 1266-85 feet, while changing from rotary to standard tools to complete, and is estimated good for 150 barrels. This 1200-foot sand is producing gas in wells completed recently to the east and southeast. Winnipeg Oil Company's Bond 4, section 100, is swabbing 250 barrels of oil from sand at 2000-16 feet and sandy-lime pay at 2049-63 feet. South Vernon Oil Company's W. H. Stephens 4, is reported with hole standing half full of oil after drilling through sand at 1948-56 feet, and drilling is continuing below 2020 feet in search of the usual sandy-lime pay. Oklahoma-Texas Oil and Refining Company's Bowers 1, located less than half mile west of the field, is lowering casing to shut off water at 2050 feet to drill deeper, while Ray-Massie et al's Bond 3 is temporarily shut down at 2055 feet after proving dry. The numerous producing horizons offered by the South Vernon field has stimulated wildcat interest in this general section of Wilbarger County, and many wildcats are being started between the field and the Electra district.

Drilling operations in Archer County returned to a normal state during the past week after an almost complete shutdown by reason of frozen water lines. Field reports covering Archer County's operations on the first of January listed a total of 153 tests underway, rigs, derricks and locations. This total is the highest registered by the county since last June, and is largely due to delay in completion of wells, while new locations continued to pile up during the cold spell. The county has 71 tests actively drilling; 30 shut down for funds, water and other causes; 47 rigs and derricks, and five locations. Pipe line runs from the county during the past week averaged 36,765 barrels, indicating that the heavy decline caused by frozen water lines is being partially recovered. The largest completion reported during the past week was Gulf Production Company's Oil Investment Company Fee 5, which flowed 580 barrels during the first 24 hours from the regular 1100-foot sand pay.

John C. Ford, general superintendent of operations of the Transcontinental Oil Company in the Rocky Mountain States, has returned to headquarters at Denver after a trip to the Mid-Continent field.

Earl Oliver, manager of the Marland Oil Company of Mexico, has returned from Tampico and severed his connection with the company on January 1 to engage in the oil business on his own account.

Dean C. Winchester of Denver has been elected president of the Rocky Mountain Association of Petroleum Geologists.

The Patented Crimp On

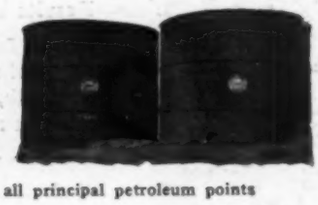
MALONEY TANKS

eliminates caulking and all doubt as to which is the

Best Bolted Steel Tank Made

Through the patented crimp or offset on all Maloney Tanks, caulking is eliminated. This exclusive Maloney feature makes the Maloney the most quickly erected of all bolted steel tanks, and the only tank whose parts fit with absolute accuracy.

Better tank service is the result of this highly perfected Maloney design. Properly erected, Maloney Tanks will stay gas-tight and outlast the usefulness of other bolted steel tanks. They are constructed entirely of Keystone Copper Steel.



Distributors with complete stocks at all principal petroleum points

Alone in Quality

MALONEY TANK MFG. CO.

Tulsa, U. S. A.

KEYSTONE COPPER STEEL

12 to 3,000 Barrels Capacity

KEYSTONE COPPER STEEL

Prompt, Dependable Export Service

MALONEY PATENTED BOLTED COPPER-STEEL TANKS

MALONEY

Oklahoma Production Decline Continues

Refiners concerned over crude supplies while producers are watching Wortham's development

Tulsa, Okla., Jan. 6.—The daily average production of the state of Oklahoma again shows a decrease for the past week when the total dropped to approximately 490,000 barrels. This is 11,000 barrels under the previous week.

The greater part of this decrease is accredited to the cold weather which continued to grip the state throughout the entire week. At the present time, the cold wave has subsided and work in the fields has been resumed to capacity. Outside of the fact that the cold weather has had a material effect upon the production of the state, the major pools of Oklahoma have shown a natural decline. Cromwell, which a few months ago was threatening to reach a peak of over a hundred thousand barrels daily, is now down to less than 35,000 barrels as a daily average with small probability that it will ever be revived to such an extent that it will affect the market situation during the winter months.

Operators in the state are still awaiting the possible outcome of the Wortham pool in Texas before making plans for the 1925 drilling campaigns, however, the large purchases of land by the larger companies is an indication that they will be prepared to start extensive drilling in the event the Wortham production shows a rapid decline or the supposed peak is never reached. News from the Wortham area is now more interesting to the Oklahoma operators than the information concerning their own state's operations.

No Big Finds Expected

At this particular time, there is not a single area in the state of Oklahoma where operators think a large pool will be uncovered. Several small pools in Lincoln and Pawnee counties are potentialities, but very little interest is being displayed in regard to the future of these. It has been predicted by students of the industry that it will require more flush production than the new areas can possibly furnish to offset the loss in the daily average of Cromwell and the deep sand wells in the Tonkawa field.

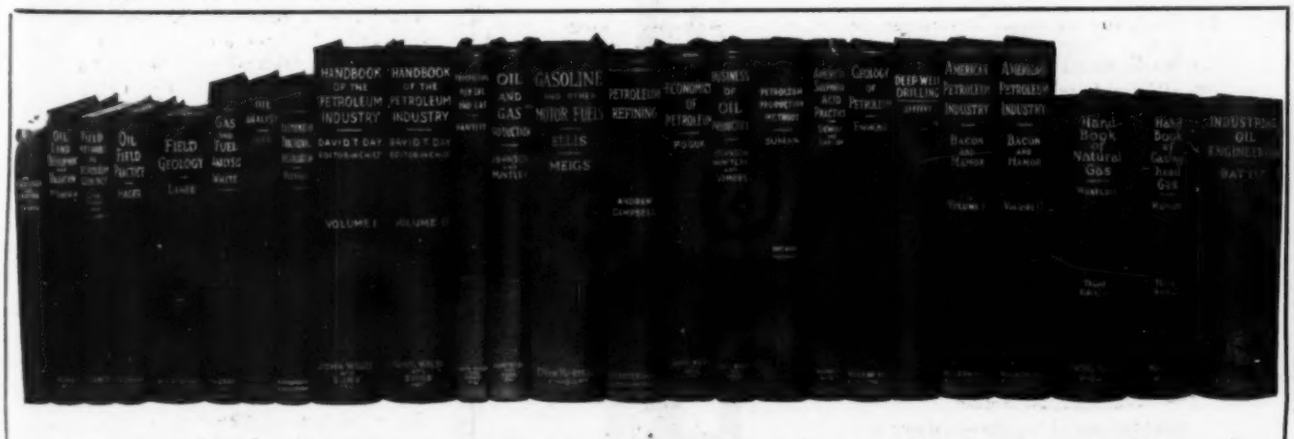
With the peak of production in the Papoose pool set at 50,000 barrels daily, it will hardly be a sufficient amount to offset the rapid decline in the Cromwell pool and whatever new production might be added in the northern fields which have lately been discovered, the amount will just about par the loss at Tonkawa.

It now seems that the smaller refiner is well aware of the fact that now is the time for them to increase their stocks of the raw material and few if any are not paying the premium price. The new production at Wortham is being run to the major companies and the smaller buyers have been left to compete for Oklahoma crude.

As a result of the completion of the Donahoe and others well in the northwest corner of the southeast of section 22-23-4, Pawnee County, which is making 150 barrels per day from the Wilcox sand at one foot in the sand topped at 3717 feet, lease trading has been very active. The Gypsy Oil Company purchased the west one-half of the northeast of section 15-23-4, paying $100.00 per acre for it. This company also bought the north one-half of the northeast of section 18-23-4 for $125.00 per acre.

Deepening Wells

With the completion of the Magnolia Petroleum Company well in the northwest corner of the southwest of the northwest of section 29-1s-8w in Stephens County, an old well drilled



The hope of the world is in keeping the spark of ambition alive and burning in every human being. When men cease to improve themselves and their conditions, society is in danger.—Axiom

PETROLEUM PRODUCTION METHODS,
By John R. Suman.
Now in its third edition, this book is regarded as the best work on drilling and the handling of production that has ever been published. Field men, office men, executives and students of the oil business should by all means have it. It contains not only the practical discussion of problems that field men and executives are called upon to solve, but embraces valuable tables that increase its value as a reference book. 650 pages, illustrated.
Postpaid $6.00

DAY'S HANDBOOK OF THE PETROLEUM INDUSTRY, By David T. Day, Ph. D., Editor-in-Chief.
A comprehensive handbook of the entire pertoleum industry in 22 sections, each prepared by an expert on his subject.
Price $15.00

HANDBOOK ON PETROLEUM,
By Thomson & Redwood.
For those engaged in the Storage, Transportation, Distribution and Industrial use of petroleum and its products and Calcium Carbide. Fourth edition, revised and added to by Major A. Cooper-Key. 338 pages, 6 x 9.
Postpaid $6.00

VALUATION OF OIL AND GAS LANDS,
By Robert Wesley Brown, M. S.
Just off the press. The purpose of this book is to present in as simple a manner as is consistent with the technical nature of the subject, the principles underlying the valuation of oil and gas lands. 215 pages, 6 x 9, Cloth.
Postpaid $3.00

FOR SALE BY
THE GULF PUBLISHING COMPANY
1716 DALLAS AVE. HOUSTON, TEXAS

deeper, two other offset wells have started drilling deeper and it is more than likely that many more wells will be started shortly.

The Magnolia well came in for 300 barrels initial production from 2403-07 feet, nearly one and one-half miles west of production in the same sand. A number of wells have been drilled to this sand in section 33-1s-8w and on the west side of section 34. There have also been several dry holes drilled in the same sections with this deep production which means that no extensive drilling campaigns will be launched but it is possible that enough wells will find the pay to offset the loss in the daily production of the old Empire pool.

In the Roxana pool in section 12-8-8 in Hughes County, the Berry Petroleum Company No. L Chupco, in the southeast corner of the southwest of the southwest of section 1-8-8, a diagonal offset to the discovery well, is producing forty million cubic feet of gas from a total depth of 3417 feet. The operators at the well are allowing the gas to run wild in the hopes that it will blow itself into an oil well. The Southwestern Petroleum Company is reported to be making plans of deepening their No. 2 Manley, in the southeast corner of section 2-8-8, which had a hole full of water at 3474 to 3480 feet. It is two locations west of the Berry gasser.

Cromwell and Tonkawa

The first Oklahoma oil well for the Houston Oil Company has been completed in the Cromwell pool. No. 1 Harjo of the company, located in the center of the southwest of the northeast of the southeast of section 15-10-8, topped the Cromwell sand at 3472 feet and drilled in to a total depth of 3513 feet at which depth the well made 93 barrels during the first two hours. The well later was making 40 barrels per hour. The Gypsy Oil Company's well in the northwest corner of the southeast of the southwest of section 14-10-8, made 82 barrels the first day and the Roxana Petroleum Corporation's No. 2, northwest of the southwest of section 14-10-8 made 309 barrels.

The total of deep sand wells in the Tonkawa field has been brought up to 66 with three new wells reported during the week just passed. The first to hit the sand was the Phillips Petroleum Company's No. 5 Daniels, which was thought to be a dry hole but is now swabbing 28 barrels per day from a total depth of 4385 feet. This well is located in the southeast of the northwest of the northeast of section 34-25-1w. Amerada Petroleum Corporation No. 39 Goltry, the second well, extended the Slick producing area one location to the north by producing 2000 barrels per day from a total depth of 4144 feet. The Comar Oil Company No. 10-W Gaume, southeast of the northwest of the northeast of section 2-24-1w, Noble County, is producing 3000 barrels per day from a total depth of 4135 feet. No. 29 McKee of the Wentz Oil Corporation is decreasing rapidly in daily production and it is thought that it is salting up.

Ten new locations have been staked by the Midland Oil Company near their wildcat producer south of the Burbank field in section 12-25-5. The discovery well is making approximately 100 barrels per day from the Burgess sand from 2897 to 2917 feet.

The east side of the Papoose field has been defined by T. B. Slick in his well in the southwest corner of the southeast of the southeast of section 35-10-9 which is reporting a hole full of water at 3365 feet. It is possible that Slick will plug back about four feet above the water line and complete the well for a small producer.

To Explore Lower California

Los Angeles, Calif., Jan. 3.—The Superior Oil Company with headquarters in Los Angeles, has secured from the Mexican government a grant for a geological survey of Lower California, the grant embracing practically all of the peninsula, comprising approximately 13,800,000 acres. The concession carries with it drilling right priority. The Superior now has geologists in Mexico on exploration work.

A. L. Leopold of Chicago, president of the Y Oil and Gas Company, has been making an inspection tour through the Mid-Continent field, where the company has holdings.

Eclipse Deepwell Pulling Machine

Weight

Safety Standard up to 2000 ft. 2" Tubing Weight.....3075

Safety Special up to 3000 ft. 2" Tubing Weight.....3385

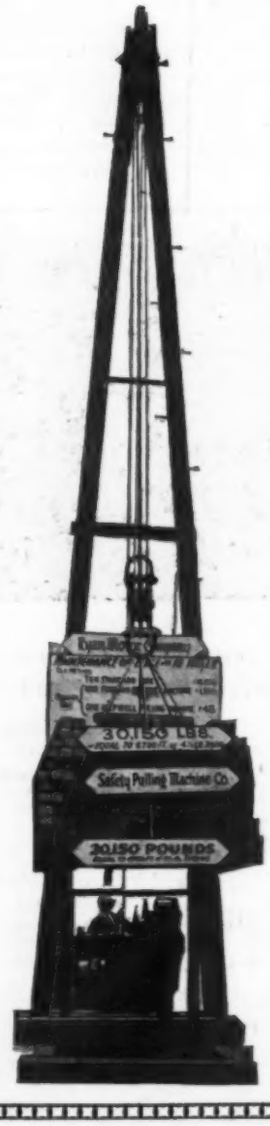
Weight

Eclipse Std. up to 2000 ft 2" Tubing Weight.....2785

Eclipse Special up to 3000 ft. 2" Tubing Weight.....3000

Eclipse Deepwell up to 8000 ft. 2" Tubing Wt. 3645

Wreckers also made to order, approximate weight 5000 lbs. One of our customers stated that he has pulled a weight equal to 100 tons with one of these machines.



Specifications Deep Well

Mast 8x10x36 ft., Douglass Fir A-Style. Two Wheel Truck, two 16" Bronze bearing crown pulleys, 2¼ Steel Pin mounted in malleable boxings. Large supporting plate 16" dia. between crown pulleys, eliminating any chance of bending pin.

Reel or Drum: 32 lb. 8¼ casing filled with concrete for winding drum, differentials banded with 3/16 band iron, brake surface 9"x40", choke brake style same as star drilling machine.

The whole reel assembly is mounted on 2¼ square steel shaft extending clear through reel, secured by three heavy castings.

For sale by all Supply Companies

Manufactured by

SAFETY PULLING MACHINE COMPANY

INDEPENDENCE, KANSAS

Wortham Passes 100,000 Barrel Mark

Expected to go to 200,000 in short time; potential area cut down by well failure

Wortham, Texas, Jan. 6.—Flush production furnished by more than 20 new completions in the Wortham field during the past week sent the daily output of the field above the 100,000 barrel level for the first time, and as this goal was reached the field scored its first failure on the east side of the structure, thereby partially determining the width of the producing area. Daily production was slightly above 110,000 barrels on Monday of this week, with every indication that it would continue to rise above the 200,000 barrel level on short notice, as about 30 tests are setting casing, or making ready to drill in. The encroachment of cut oil in sufficient quantities to warrant treating has been confined to the Edwards well on the north end of the structure, and lease owners are pinching the production of all wells showing a noticeable rise in the temperature of the oil. The presence of water in the Woodbine sand is preceded by a rise in the temperature of the oil.

Failure Halts Tests

The potential width of the Wortham structure was narrowed down several locations more than the operators were anticipating during the past week when the Mutual Oil Company's J. J. Manning 1, located on the east side of the field, just east of the railroad and exactly midway the length of the field, bailed salt water in the Woodbine sand at 3003-27 feet (s.l.m.). This test logged the Austin chalk at 2245-2632 feet, and was considered favorably located for oil production. Neither oil or gas was found in the sand, and when bailed the water rose to within 800 feet of the top and could not be bailed down. The failure of this test has resulted in about six drilling tests being halted, while several nearby tests are to be carried down and make a test of the sand without setting casing. The log of this water well will furnish valuable information to other operators in the field in determining the approximate water level, as heretofore the danger line for depths of wells has only been guessed at, but fortunately with success. Since the approximate edge of the field on the west is already known through the drilling of wells in the fault proper, the failure on the Manning lease indicates that the field will be less than 2000 feet in width at this point.

Humble Oil and Refining Company's Ed. Crouch 2-A, located 1200 feet northeast of the Mutual Oil Company's failure, is also showing for a dry hole, as late last week it had reached a depth of 3025 feet with no sand showing. Another doubtful test is the Kirby Petroleum Company's Wright 1, located in block 9, district 8 of the Wortham townsite, and late reports credit it with being in the Austin chalk while drilling below 2900 feet. The top of the chalk was reported at 2648 feet. However, this test may be situated in the fault proper, thereby accounting for its formation running abnormal. It is less than 1000 feet due west of Kirby's Chancellor 1, block 6, which came in on the first day of January with an estimated flow of 7000 barrels at 2976-3003 feet.

Big Gas Flow

Heavy gas production instead of a large flow of oil was obtained last week when Humble's two completions on the Dodd-Reddus land extended the field several locations to the northeast. The first well drilled top of Woodbine sand at 2987 feet with big pay in hard sand at 3005-15 feet, and flowed at rate of 50 barrels of oil per hour initial, while the gas pressure amounted to about ten million cubic feet daily. Humble's Dodd-Reddus 2 was completed a few days later with an initial flow of about 2000 barrels and considerable gas at 2990-3019 feet. Both wells were flowed wide open to try and exhaust the gas pressure and increase the oil flow. The initial flow of these two wells was considerably smaller than the average of the five wells located a short distance to the south, thereby offering some indications that the flush is becoming less as the field extends to the northeast. Atlantic Oil Producing Company's A. H. Edwards 1, located on the east edge of the townsite and a short distance south of the E. L. Smith Oil Company's Edwards producer, is reported to have bailed dry in sand at 3013-19 feet early this week, and is to drill deeper. E. L. Smith Oil Company's Edwards 1 is the only well in the field that is producing cut oil that necessitates treating.

Comparatively small production is being obtained from wells completed on the lower end of the Wortham structure, and in the vicinity of the discovery well. Gulf Production Company's Frank Ferguson 1 is flowing about 1500 barrels daily by heads from sand at 2997-3019 feet. Humphreys-Boyd Oil Company's Frank Ferguson 2 is showing for a similar type of well after bailing sand at 2994-3017 feet. Humphreys-Boyd Oil Company's J. J. Manning 2 is reported to be showing for a 500 barrel producer at 2987-3009 feet, although not completed. Gulf Production Company's Simmons 1 is reported drilling deeper after bailing dry in sand at 2980-90 feet. The largest producer completed in the field during the past week was scored by Humble's R. J. Poindexter 2, which made 380 barrels of pipe line oil per hour from sand at 2934-3010 feet. This well is in the lower part of the townsite, and near the fault. J. K. Hughes Development Company's M. Crouch 1 is reported good for 7500 barrels from sand at 2942-94 feet.

A 75-car capacity loading rack is being erected by the W. K. Campbell Company on the H. & T. C. Railroad, a short distance north of Wortham, to ship crude from the field to the Gulf Coast for delivery to refineries on the Atlantic Coast in tankers. This company is contracting for crude in the field at the posted price, and will also handle crude for other buyers in the field through its pipe line gathering system and rack. Walter K. Campbell, president of the Western Oil Corporation of Tulsa, is at the head of the newly organized crude buying concern,

FIELD WORK UNDER WAY AT WORTHAM ON JAN. 1.

	Drilling*	Rigs	Derricks	Locations
Atlantic Oil Prod. Co...	6	1	..	2
Atlantic-Penn-Boyd et al	4	1	..	..
Barkley & Meadows ...	2	..	..	..
Mills Bennett et al....	1	1	..	1
Carter-Lytle et al	4	1	..	1
Clark et al.....	1	..	..	..
Collins-Wheelock et al.	2	..	..	..
Cranfill-Reynolds et al.	2	..	..	..
Eastland Oil Co. et al..	1	..	..	..
Farrish-Watts & Collins	5	..	1	1
Godley O. & G. Co....	3	2	..	1
Gulf Prod. Co.	13	3	3	..
Gay Hammond et al ..	1	..	..	..
Pink Hammond et al ..	1	1	1	..
Hapgood et al	1	..	..	..
Hudson et al	..	1	..	..
J. K. Hughes Dev. Co.	7	2	5	..
Mrs. J. K. Hughes et al	4	..	..	..
Humble Oil & Ref. Co.	40	11	2	7
Humphreys-Boyd O. Co.	30	12	15	2
Kirby Pet. Co.	7	4	1	..
Magnolia Pet. Co.	13	2	2	..
Moss et al	2	..	..	..
Murchison & Fain	1	..	..	..
Mutual Oil Co.	2	..	..	..
Northwest Co.	..	1	..	..
Owenwood Oil Corp. ..	1	1	..	..
Oxford Oil Co.	2	1	..	1
Panhandle Ref. Co.	..	1	..	..
Patterson Lake Oil Co.	1	..	..	..
Pure Oil Co.	2	4	1	..
Quaker Oil Co.	..	..	1	..
Ramsey Oil Co.	..	1	..	..
Ray-Massey et al	2	..	..	..
Republic Prod. Co.	3	2	1	1
Rio Bravo Oil Co.....	2	1	4	5
Simms Oil Co.	10	1	..	..
Simms-Marland Oil Co.	17	1	2	..
Skelly Oil Co.	1	..	..	..
E. L. Smith Oil Co....	4	1	..	1
Southern Explor. Co....	3	..	1	..
Sowell et al	..	1	..	..
Sun Oil Co.	7	..	..	..
Tarver et al	2	..	..	..
Tri-Y Oil Co.	1	..	1	4
J. E. Walsh et al.....	2	..	..	..
Totals	213	58	41	27
Totals previous week...	181	60	45	35

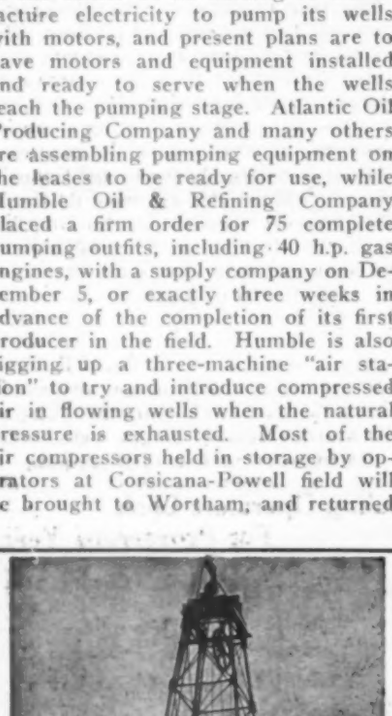
*Includes tests temporarily shut down for water.

and H. B. May is vice-president and general manager. Headquarters are located at 1117 Frost National Bank building, San Antonio.

Since the average life of a flowing well in fields producing from the Woodbine sand pay is only about 30 days after drainage becomes widespread, the lease owners at Wortham are purchasing equipment and making ready to place wells on the pump without delay, although an effort will be made to swab and flow with air if the fluid level in the hole permits. The Simms Oil Company is erecting an electric power plant in the center of its holding to manufacture electricity to pump its wells with motors, and present plans are to have motors and equipment installed and ready to serve when the wells reach the pumping stage. Atlantic Oil Producing Company and many others are assembling pumping equipment on the leases to be ready for use, while Humble Oil & Refining Company placed a firm order for 75 complete pumping outfits, including 40 h.p. gas engines, with a supply company on December 5, or exactly three weeks in advance of the completion of its first producer in the field. Humble is also rigging up a three-machine "air station" to try and introduce compressed air in flowing wells when the natural pressure is exhausted. Most of the air compressors held in storage by operators at Corsicana-Powell field will be brought to Wortham, and returned to active service, if air is found to be a satisfactory means of flowing wells artificially, as was experienced in some wells at Mexia, Currie and Corsicana-Powell fields.

The fluid level in wells after the natural flow is depleted will play an important role in determining the ultimate crude yield per acre at Wortham, as a high fluid level such as was experienced at Mexia will assure a profitable period of swabbing for each well before going on the pump, and will also permit the use of air. The wells in the Corsicana-Powell field as a whole had a low fluid level—an average of about 500 feet—and proved difficult in pumping, although about 36 wells in the field afforded a fluid level that permitted the introduction of air in lifting the oil to the surface. The fluid level in wells at Mexia averaged 1250 feet from the bottom of the hole when the pressure was first taken off the field, and considerable oil was recovered with the swab before placing the wells on the beam. Until some of the producers are exhausted in their natural flow, the fluid level at Wortham can only be guessed at.

The return of favorable weather during the past week served to speed up drilling operations, and the field started the new year off with a total of 339 operations listed on the drilling report, of which 213 tests were actively underway, or temporarily shut down for lack of water, or awaiting the completion of a nearby test that would serve to define the field. A limited water supply is holding back the normal speed of developments, and extreme measures have been introduced to overcome this handicap by going to distant points for water at any cost. The Texas Pipe Line Company is pumping water through its regular crude line from Dallas, as has previously been mentioned in these columns, and this unusual procedure has since been gone one better by the Clayton Oil & Refining Company in shipping water in tank cars from Dallas when returning its cars to Wortham for crude. The W. K. Campbell Company and Sun Oil Company are also shipping water to the field in tank cars. Humble is piping water from its system in the Corsicana-Powell field, while Humphreys-Boyd Oil Company has built a line to Lake Richland. Some of the operators are piping salt water from producing wells at Mexia and trying to use same in boilers on drilling tests at Wortham.



Toteco No. 25 Well, near Tampico, Mexico. A Sullivan "P-2" Drill brought this well in at 3842 feet.

DEEP TESTS
and the
DIAMOND DRILL

USE the diamond core drill for deep tests in virgin territory.

The cores secured will show accurately the presence or absence of oil, and the thickness and relation of all strata.

The drill will handle rapidly any formation encountered, giving you speed in either "cable" or "rotary" ground. It will handle mud fluid. It will control heavy rock or gas pressure, without damage or loss.

The outfit is light, requires only small casing and drill rods. Transportation costs are low. Depths to 5000 feet.

If you are looking for oil, the diamond drill will save you money, and get reliable information quickly.

Bulletin 4280-O

Sullivan Machinery Co.

122 So. Michigan Ave.,

Chicago

Two Wells Increase Yield in Laredo Area

Laredo, Texas, Jan. 3.—Daily production in the Henne, Winch and Farriss pool was boosted 3000 barrels during the week when the Plateau Oil & Gas Company completed its No. 1 Holbein in Jim Hogg County for 2500 barrels, and Henne, Winch and Farriss' No. 6 Martinez was brought in for 500 barrels. The latter well is on block 3 of survey 256.

No. 1 Holbein came in the early part of the week, flowing at the rate of 1500 barrels per day by heads. It later cleared itself, increasing the flow to 2500 barrels per day.

Local interest is centered around the Simms Oil Company's test on survey 84 of Jim Hogg County. The crew is preparing to test a sand which has shown considerable oil and gas. If completed as a producer, the test will open up a new field along the escarpment about six miles south of the proven area.

Believed New Sand Found In Orange Field

Orange, Tex., Jan. 9.—What is believed to be a new sand in the Orange field was found when the Rycade Oil Corporation completed its E-8 well on the State land January 9 at 4915 feet. After the well partly cleaned itself, production gauged 3000 barrels per day, giving indications of increasing.

E-8 is located near the south bank of Cow bayou, practically an offset to the Gulf Production Company's D. F. Boyles No. 15, which was completed for a producer at 4600 feet.

Oil from the Rycade's well is pipe line grade, about 32 degrees gravity, and is flowing at a normal temperature. Sand in the E-8 is 12 feet deep.

Land adjacent to the Rycade's holdings, the majority of which lies in a two mile stretch of the Cow bayou bed, is held by the Sun and Gulf.

Continued Small Showings Discourages Cotton Valley as Oil Producing Area

Shreveport, La., Jan. 5.—With current completions restricted to gassers, sprayers and small pumpers yielding high percentages of salt water, present opinion regarding the prospects of the Cotton Valley field is distinctly of unfavorable character. That little or no oil production is to be expected from the gas yielding crest of the structure, and that the oil producing belt surrounding it is of uncertain width and fertility is the consensus of opinion among operators interested there. It has been aptly said that there is no "proven area" at Cotton Valley. Dry gassers and salt water wells have been drilled at locations offsetting flowing oil wells. Each new well represents a wildcat venture of itself, as there probably is no point in the field where a well may be begun with certainty that it will repay its cost. It is true that a number of individual wells have already yielded upward of 100,000 barrels each, yet the high percentage of mediocre wells lowers the average of the field alarmingly.

Although the field is now a year old, pipe line runs averaged only 5840 barrels per day last month. Of four wells completed last week, only one, drilled by the Humble Oil and Refining Company in the eastern extension, yields oil. The others are gassers.

Drilling operations in the southwestern extension are practically at a standstill, following recent failures. In the eastern extension, however, the Crusader Oil Company, purchaser of the Oil Fields Gas Company's properties, has made a number of new locations, and it is likely that several new wells will be begun at competitive locations in that area.

The Crusader Pipe Line Company has constructed a loading rack on the L. & A. railroad in the northeast quarter of section 33-21-10. Gathering lines have been laid to sections 13 and 24, of the eastern extension, where the company's production is located.

The Louisiana Oil Refining Corporation is preparing to drill deeper for a third test in its No. 1 Nelson, located near the center of section 28-21-10, in the southwest extension. This well, a gasser, yielded a slight spray of oil when tested at 2569 feet, and it was then drilled ten feet deeper. The second test yielded a heavier spray, which promised the possibility that commercial production may result from the third test now in progress.

The Bethany Oil and Gas Company is drilling in today in its No. 2 Wiley, in section 6-22-9, Shongaloo district. This important test is located on what may be the southeastern flank of the Shongaloo structure, about midway between the famous Gleason and Mayfield wells, which showed oil in considerable quantity. The Louisiana Oil Refining Corporation has set eight-inch casing at around 1200 feet in its Armor well, in section 21-23-9, located about one mile east, toward the Haynesville field, from the Mayfield well.

The Texas Company's No. 1 Tinsley, in section 35-23-10, was completed last week with an initial production of 42 million cubic feet of dry gas per day from a total depth of 2657 feet. That

Shreveport, La., Jan. 6.—Bethany Oil and Gas Company's Wiley No. 2, in section 6-22-9, Shongaloo District, Webster Parish, came in yesterday with an initial production of thirty seven million cubic feet of gas per day from a total depth of 2654 feet, with no showing of oil whatever.

The Texas Company's drilling program is to be continued, is indicated by the fact that a derrick has been built on its Lewis lease, in section 25 of the same township.

Haenlen et al's Roberts wildcat, in section 9-23-10, Webster Parish, has been abandoned in salt water at a total depth of 2746 feet. The Arkansas Natural Gas Company's No. 1 Frazier, in section 27-23-11, has been abandoned after having tested dry at 2687 feet and salt water at 2690 feet. It is located about one mile northeast of the Lloyd Harris oil well.

McDowell and others are preparing to set six-inch casing at 2510 feet in their No. 1 Hortman, a wildcat well located in section 15-20-10, Webster Parish, about four miles south of the Cotton Valley field. A showing of gas is said to have been noted in this well at a depth of 2525 feet.

G. W. Wetherbee, of Shreveport, is rigging up on a wildcat operation located on the Holland property, in section 9-22-11, Bossier Parish, in the Sarepta community.

In La Salle Parish, the Urania Petroleum Company, of England, is rigging up on its No. 5 Urania Lumber Company, a proposed deep test located in section 18-10-2e.

Jim Evans is drilling in lime at 2110 feet in his Taylor wildcat, in section 5-19-5, of the Sugar Creek community of Claiborne Parish. The El Dorado Chief Oil Company is drilling below 2400 feet in its McElwee wildcat, located in section 13-22-7, between Homer and Haynesville.

In De Soto Parish, Senator Ulrey and associates are drilling below 750 feet in their Patterson-Robinson wildcat, in section 22-11-12, and Tarver and others are rigging up on Conley No. 1, located in section 2-14-10.

Eastern New Flush Oil Reaches Lowest Level

Pittsburgh, Pa., Jan. 5.—With the holiday season passed there will be more prospects of a renewal of activity throughout the Eastern fields. But few completions were reported from any of the fields outside of West Virginia, where the gas companies have been the most active. Kentucky failed to show one completion for the week, but that is due to the fact that the operators are not natives and they shut down for the holidays.

The recent advance in the Pennsylvania grades of crude, looks more favorable for better prices than at any period during the past few months and operators are ready and anxious to go as soon as weather conditions see a turn for at the present time zero weather is not conducive to drilling operations. Much damage was done to oil equipment throughout the east by the heavy sleet storm of a week ago, and a heavy coating of snow covering the ground makes work in the fields almost out of the question. Regardless of these conditions, a total of 110 wells were completed, but the flush production proved the lowest for any time during the past twelve months. There was a large number of gas wells with a nice improvement in their output.

Luling Operators Look For Prosperous Year

Luling, Texas, Jan. 3.—Following the slump in field activities which marked the close of a prosperous year in the Luling territory, operators are looking forward to a busy year in Guadalupe and Caldwell counties during 1925.

Many companies now operating near Luling are planning to inaugurate drilling campaigns in proven and unproven areas of both counties.

Last week's completions in the field increased the daily yield 500 barrels. The United North & South Oil Company's No. 11 Mills Mercer and No. 7 Gideon were brought in for 300 and 200 barrels, respectively. No. 11 Mills Mercer is flowing clean oil.

MacBeth Heads California Chamber of Mines and Oil

Los Angeles, Calif., Jan. 3.—At the annual meeting of the directors of the Chamber of Mines and Oil of California early this week in Los Angeles, A. B. MacBeth, vice president and general manager of the Southern California Gas Company and the Midway Gas Company, was elected president to succeed A. C. McLaughlin, whose term had expired. Other officers were re-elected without change.

Mr. MacBeth is a member of the board of directors of the Union Oil Company, in addition to being a member of the executive committee of the Union. He at one time served as president of the Natural Gas Association and was a director of the American Gas Association.

New Year Opens Things Up In Kansas Oil Fields

Wichita, Kansas, Jan. 6.—With the coming of the New Year, which brought with it three nice producers, Kansas oil field operations awoke after several weeks of inactivity. Due to the weather conditions, which included rain, sleet and snow, oil operations throughout the state have been at a low ebb. But with the coming of more favorable weather many wells are to be drilled in.

Probably the most interesting development during the week was the bringing in of the 900-barrel well on the Waite farm, in the northwest corner of the southeast of section 19-32-3, in the new Slick-Carson pool of Cowley County. The new well is the property of the Carter Oil Company, and is producing from the 2600-foot sand. The discovery well, Slick's No. 1 Carson, failed to produce from this horizon but made over 1000 barrels initial flow from 3000-foot depth. The Waite well offsets to the south the Carson well. The 2600-foot sand is producing oil in the Graham pool in smaller quantities, and the Rainbow Bend field reports a show of oil at the same depth. The Graham pool lays three miles south and two miles east of the Slick-Carson field, while the Rainbow Bend field lays five miles directly south. With this in view it is reasonable to believe that oil may be found in a large section east of and along the Arkansas river. That the shallow sand pinches off to the north of the Slick-Carson pool is evident as Hess and others drilled in a dry hole two miles north of the Carter well, even below the Wilcox horizon.

Waite Phillips Company's No. 2 Backus, in the northeast of the southwest of the northwest of section 20-33-3, Rainbow Bend field, came in for a producer at a depth of 3239-60 feet. The new well is making close to 1000 barrels of production. The well is on the same lease with No. 1 Backus, the smallest producer in the new field. The highest production attained by this well was 175 barrels, it is now making 120 barrels a day. The well was completed about the middle of September and was thought to be on west edge of the pool. This opinion was based on the fact that its production was only 175 barrels daily, and did not carry the usual amount of gas. This theory was unfounded with the splendid showing of the Glasgow producers. The Backus lease is the only lease in the present area of the Rainbow Bend field that the Marland Oil Company and the Independent Oil & Gas Company do not share in the interest of the Waite Phillips Company.

The Waite Phillips Company and associates report the completion of No. 1 A. Thurlow in the southeast corner of the southwest of section 20-33-3, northern edge of the Rainbow Bend field, for over 600 barrels daily. The well found the pay at 3204 to 3238 feet.

The Waite Phillips Company's pipe line from the Rainbow Bend area to their Wichita refinery has not yet been completed, owing to the long spell of zero weather. The Oklahoma Pipe Line Company is rushing the completion of its extension from the New Salem pumping plant to the Slick-Carson pool, eight miles west of Winfield, in order to take care of the Carter Oil Company's production there. The extension is about twelve miles.

New Club Grows and Grows

Graham & Company Latest to Qualify—Here's How:

The Success-in-One-Run Fishing Club is composed of men who have experienced the grand and glorious feeling of getting their "fish" on the FIRST RUN of the fishing tool. The official tools are, of course, the DEVIL'S STEEL HAND and the DEVIL'S PITCHFORK. If by chance YOU are eligible for membership, send us the details so that you may be officially "initiated."

About a month ago, while drilling their Curry No. 10, Graham & Co. of Stephens County, Texas, froze their 6¾" and had to pull it. They pulled the pipe in two.

When they tried to jar the lower joints loose they broke a three-slip trip spear off at the top of the slip seats. Next they went in and bumped the spear down, caught the casing with another spear and got the pipe, leaving the old spear in the hole.

They fished for 4 DAYS with horn sockets, hollow reamers, spuds, other tools and swearing. Then George Kiffinger decided to try the DEVIL'S STEEL HAND.

They fished the piece of spear out on the FIRST RUN, and thus became members of the constantly growing Success-in-One-Run Fishing Club."

Shall we send you prices and other details? Immediate shipments.

Brown Welding & Machine Co.

BRECKENRIDGE, TEXAS

Tulsa Rental Branch: 424 East Second St., Tulsa

Devil's Pitchfork

Devil's Steel Hand

DEVIL'S STEEL HAND and PITCHFORK

State's Suit to Recover Humble Acreage Postponed

Austin, Texas, Jan. 6.—Trial of the suit of the State of Texas against oil companies and land individuals, involving title to producing properties in the Humble oil field, was postponed when called for trial January 5. Pleas of privilege were waived by all but two of the defendants.

The suit is styled the State of Texas vs. R. L. Blaffer et al. The State is proceeding on the ground that title to the lands was passed by individuals to oil companies in 1900 and that the transactions were not lawful. The effort of the State is to regain title and to recover damage on oil produced. It is claimed that $50,000,000 is involved in the litigation.

The court will await the determination of the two pleas of privilege not waived before moving to trial of the case.

Completions for Past Week in U. S. Fields

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Product'n This Week	Initial Product'n Last Week
Oklahoma	83	56	55	29	9	4	19	23	53,998	9,666
Kansas	..	8	..	3	..	2	..	3	.....	495
Texas	82	60	55	42	4	2	23	16	101,317	56,803
Arkansas	13	14	11	12	..	..	2	2	765	1,290
Louisiana	15	5	5	..	5	3	5	2	280	....
Eastern States	121	101	39	51	58	32	24	18	489	1,374
Mountain States	3	..	3	..	..	..	..	..	755	....
California	23	18	21	17	..	..	2	1	10,130	9,515
Totals	340	262	189	154	76	43	75	65	167,734	79,143

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudded; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

Mountain States

WYOMING

Company, Well and Location	Initial Production Bbls.	Depth
Salt Creek Field—		
Wyoming Oil Fields Co. 36-A	100	1473
Wyoming Associated Oil Co. 4-A	555	1450
Utah Oil & Refining Co. 26-A	100	2135

Texas

ARCHER COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Camp Oil & Gas Co. E. M. Hughes 1	*	605
Gulf Production Co. T. L. Griffin 11	*	1808
T. L. Griffin 1-B	150	1303
Oil Investment Co. Fee 5	580	1104
J. F. Rogers 1	40	1305
Humble Oil & Ref. Co. W. J. Ragle 3	20	1095
Jeffers & Newby et al Andrews 2	*	1605
Murchison & Fain et al T. L. Griffin 8	310	1305
T. L. Griffin 9	300	1304
H. Harmel 4-B	30	1288
H. Harmel 5-C	205	1285
Petroleum Prod. Oil Co. J. S. Bridwell 3	460	1129
J. S. Bridwell 4	110	1137
E. A. Hausler 1	300	1130
Ray-Featherstone et al E. A. Hausler 9	100	1102
E. A. Hausler 10	100	1120
Shamrock Oil Co. J. T. Richardson 17	100	1331
Shaw & Rathke et al W. O. Hayter 1	210	1318
Texhoma Oil & Ref. Co. E. A. Hausler 11	*	1200
The Texas Co. B. R. Jeske 3	20	1153

K-M-A AND IOWA PARK

Company, Well and Location	Initial Production Bbls.	Depth
Petroleum Prod. Oil Co. Allen & Kemp 2-B	100	1648
Stump Oil & Gas Co. W. H. Chilson 1, (Blk. 12)	*	1847

STEPHENS COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Cobb et al Simmons 1	*	1842

YOUNG COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Christie Bros. et al J. A. McLaren 3	50	2377
Harris & McLaughlin et al O. Andrews 1	*	1515
Heatherly & Chambers' Heatherly 1	*	1402
Jones et al S. R. Jeffrey 1	*	1505
Simms Oil Co. J. D. Carpenter 1	100	1027

GULF COAST

Company, Well and Location	Initial Production Bbls.	Depth
Batson—		
Thibedeaux & Cavitt's No. 2 King	*	1290
Hull—		
Republic Prod. Co.'s Dolbear 48 (wo)	20	2450
Dolbear 93	75	2580
Dolbear 96	125	2210
Gulf Prod. Co.'s Phoenix Dev. Co. 43	100	2960
Pierce Junction—		
Gulf Prod. Co.'s E. R. Taylor et al 9	1000	3855

NORTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
Powell District—		
Andrews Pet. Co.'s Williams 2	*	3110
Pure Oil Co.'s Kent 9	15	1570
Webster 1	*	3075
Wortham District—		
Boyd Oil Co.'s Simmons 5	3600	2965
Simmons 6	2500	2965
Ferguson 2	1600	3019
Atlantic Oil & Prod. Co.'s Simmons 1	2600	2987
Edwards 1	*	3020
Humble Oil & Ref. Co.'s E. D. Crouch A-1	7300	2992
Ella Dodd 1	2000	3017
E. D. Crouch A-2	*	3033
Lindly 1	6168	2983
R. G. Poindexter 2	8000	3012
Ferguson 1	4000	2978
Kirby Pet. Co.'s Chancellor 1	9600	3005
Moss & Keeling's Simmons 1	2500	2980
Gulf Prod. Co.'s H. F. Ferguson 1	746	3000
J. K. Hughes' E. D. Crouch 1	5000	2995
Mutual Oil Co.'s Manning 1	*	3030
Pure Oil Co.'s S. T. Bounds 2	6000	2970
Oxford Oil Co.'s Morrow 1	2500	3000
Strube & Strube's Lindly 1	3800	2987
Simms Oil Co.'s Calame 1	7800	3017
Simmons 3	4000	2967
Calame 2	3000	3017
Simmons 2	5000	2973
Rio Bravo Oil Co.'s Railway 1	5000	3003
Railway 2	3600	3003
Railway 4	5400	2990

TEXAS MISCELLANEOUS LULING

Company, Well and Location	Initial Production Bbls.	Depth
United North & South Oil Company's Mills Mercer 11	200	....
Gideon 7	200	....

SOUTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
Vinton—		
Vinton Pet. Co.'s No. 14 Vincent	60	3155
Wilson-Broach's No. 6 Parks (wo)	*	2805
Evangeline—		
Texas Co.'s No. 49 Latreille (wo)	25	1955

California

Company, Well and Location	Initial Production Bbls.	Depth
Huntington Beach—		
Petroleum Midway's Columbia 1 (wo)	30	4900
Brown 3 (wo)	460	3648
Rosecrans—		
Barnsdall's O'Dea 1 (wo)	400	4760
E. J. Miley's Atens 2 (wo)	1000	5142
Torrance—		
Huntington Signal's Pothoff 1 (wo)	40	3747
Pan American's McPherson 2 (wo)	30	3790
McBride 1 (wo)	25	3775
Petroleum Securities' Kleinmeyer A-13	200	3825
Standard's Dominguez 14	70	3810
Kettle 4	100	3815
Dominguez—		
Union Oil Co.'s Callender 7	3500	4464
Shell Co.'s Reyes 19	1200	4100
Reyes 13	1350	4182
Santa Fe Springs—		
Petroleum Midway's Mattern 3-8	200	3775
Inglewood—		
Mohawk Oil & Gas Synd.'s No. 1	300	2344
Elk Hills—		
Pacific Oil's No. 5, sec. 35-30-24	160	2970
Sunset District—		
General Petroleum's No. 396, Sec. 35	145	2520
Wheeler Ridge—		
Standard's No. 14, Sec. 27	160	2145
McKittrick—		
Union Oil's No. 1, Sec. 30-30-22	15	4835
Ventura—		
Associated's Lloyd 14-A	720	....
Henderson-Robinson's No. 16	25	1250
Santa Barbara County—		
Standard's Buell 1-C, Sec. 27-7-32	*	4536
Hydrocarbon Products' No. 1, Sec. 19-7-31	*	1890

Louisiana

Company, Well and Location	Initial Production Bbls.	Depth
Caddo Parish—		
Lewis Oil Corp.'s Caddo Mineral Lands 5, 24-23-15	40	1042
Tholl Oil Co.'s Crye 12, 22-21-15	5	1627
Total, 2 wells	45	
Cotton Valley Field, Webster Parish—		
Fortuna Oil Co.'s S. J. Merritt 4, 14-21-10	¶2	2524
Humble Oil & Ref. Co.'s Bodcau Lbr. Co. B-4, 24-21-10	150	2522

Company, Well and Location	Initial Production Bbls.	Depth
Bodcau Lbr. Co. B-9, 28-21-10	¶20	2582
Ohio Oil Co.'s Bodcau Lbr. Co. 12, 27-21-10	¶10	2563
Total, 4 wells	¶32-150	
Elm Grove Gas Field, Bossier Parish—		
Standard Oil Co.'s McDade 4, 31-16-11	*	1927
Monroe Gas Field, Ouachita Parish—		
Ouachita Natural Gas Co.'s Trezevant 3, 40-20-4e	¶21	2155
Shongaloo Gas Field, Webster Parish—		
The Texas Co.'s Tinsley 1, 35-23-10	¶42	2657
EAST TEXAS		
Waskom Gas Field, Harrison County—		
E. J. Deas et al's J. Davis 1, W. H. Adams H/R Survey	¶15	1950
Morris Trust's Hickman 2, E. Pollack H/R Survey	¶10	933
Total, 2 wells	¶25	
Panola County—		
Thomason et al's Trosper 2, J. Thorpe H/R Survey	¶4	1005
Abe Mays 2, J. Thorpe H/R Sur.	¶4	1000
Total, 2 wells	¶8	

Arkansas

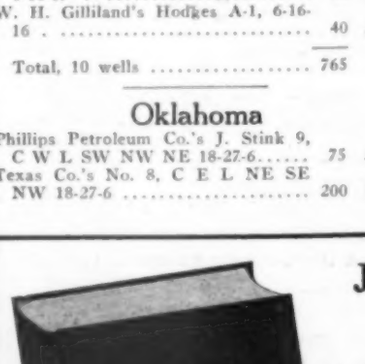
Company, Well and Location	Initial Production Bbls.	Depth
El Dorado East Field—		
Terry Summerfield Oil Co.'s Smith 6, 29-17-14	50	2185
Smackover Field, Ouachita County—		
Clark & Melat's Murphy 2, 4-16-15	130	1969
Forrest City Box Co.'s Fee 1, 31-15-16	90	2263
Galloway et al's Hughes 2, 28-15-16	100	2275
Gulf Ref. Co.'s Reynolds 1, 23-15-17	125	2315
Gilliland Oil Co.'s Smith 4, 36-15-17	40	2282
Duho Oil Co.'s McKenzie 4, 36-15-16	135	2015
Riggs Drlg. Co.'s Myar 3, 29-15-16	40	2260
Staves et al's Jeffus 3, 26-15-16	25	2339
Smackover Field, Union County—		
Arkansas Fuel Oil Co.'s LaGrone 5, 1-16-17	40	2268
W. H. Gilliland's Hodkes A-1, 6-16-16	40	2270
Total, 10 wells	765	

Oklahoma

Company, Well and Location	Initial Production Bbls.	Depth
Phillips Petroleum Co.'s J. Stink 9, C W L SW NW NE 18-27-6	75	2993
Texas Co.'s No. 8, C E L NE SE NW 18-27-6	200	2985
Carter County—		
Amerada Petroleum Corp.'s No. 3, C E L SE NW 28-5s-1	140	1190
Creek County—		
Peters Petroleum Co.'s Harry 1, NWc SE 4-14-10	150	3196
Roland Oil Co.'s Morrison 2, NWc NE NE 25-17-8	¶	2740
Suppese et al's Marshall 3, C E L NE NW SW 8-16-12	40	2115
Hall & Crider's No. 1, SEc blk 18, C S L SW NE SW 8-16-12	40	2100
Ireland et al's Freeman 2, C SW SE 8-17-11	¶	2047
C. F. Noble's Cooper 1, C NE NE NW 20-14-10	350	3390
Wood & Ferren's Jack 4, NEc SW NW 7-14-7	25	4179
Garvin County—		
Magnolia Petroleum Co.'s Harris 5, C SW SE NW 16-1-3w	18	1612
Hughes County—		
Southwestern Petroleum Co.'s Larney 1, C SE SE SE 2-8-8	*	3488
Slick's Grayson 1, C NW NE NE 3-9-9	1100	3322
Slick et al's Grayson 3, C NW NW NE 3-9-9	400	3316
Jefferson County—		
Carpenter et al's Arbuckle 1, SEc 25-5s-5	*	495
Deese et al's Arbuckle 1, C N L NE NE 36-5s-5	*	635
Null 1, NEc NW NE 24-5s-5	*	655
Kay County—		
Douglas Oil Co.'s Hardy 1, NEc NW NW 9-28-4	*	3820
White Eagle O. & R. Co.'s Lemar 1, NWc SW 22-29-1w	130	2036
Wentz Oil Co.'s Thomas 1, NEc NW 21-25-2w	*	1270
Amerada Petroleum Corp.'s Woods 33, SEc SW NE 34-25-1w	1070	4146
Woods 34, C S L SW SW NE 34-25-1w	1350	4142
Woods 35, NWc SW NE 34-25-1w	1800	4168
Woods 36, NEc SW NE 34-25-1w	1425	4121
Woods 37, SEc NW NE 34-25-1w	1450	4150
Woods 38, SWc NW NE 34-25-1w	3393	4155
Blackwell O. & G. Co.'s Corrigan 1-C, SWc SE NE 34-25-1w	2100	4100
Corrigan 3-C, NWc SE NE 34-25-1w	2715	4116
Corrigan 4-C, SEc NE 34-25-1w	1575	4130
Corrigan 7-B, NEc SE NE 34-25-1w	476	4060
Pennok Oil Co.'s Endicott 4-D, NEc SE SE 34-25-1w	900	40[illegible]
Endicott 5-D, NWc SW SE 34-25-1w	800	42[illegible]
Endicott 1-D, SEc SW NE 34-25-1w	1000	41[illegible]
Endicott 8-D, NWc SE SE 34-25-1w	850	42[illegible]
Comar Oil Co.'s Endicott 2-W, NWc SE 34-25-1w	2079	42[illegible]
Endicott 3-W, SWc NW SE 34-25-1w	2724	42[illegible]
Endicott 5-W, SEc NW SE 35-25-1w	1208	40[illegible]
Endicott 4-W, NEc NW SE 34-25-1w	2300	41[illegible]
Endicott 6-W, SEc NW SE 34-25-1w	1900	41[illegible]
Clements 1-W, SEc NW 34-25-1w	2607	42[illegible]
Clements 4-W, NEc SE NW 34-25-1w	3187	42[illegible]
Endicott 7-W, SWc NE SW 35-25-1w	597	40[illegible]
Endicott 7-W, SWc NE SE 34-25-1w	1950	41[illegible]
Endicott 1-W, SEc NE SE 34-25-1w	1600	41[illegible]
Clements 3-W, NWc SE NW 34-25-1w	3359	41[illegible]
Lincoln County—		
J. C. Cooke's No. 1, SEc SW SW 15-14-6	25	3115
Noble County—		
Comar Oil Co.'s Blubaugh 9-C, C NE SW NE 2-24-1w	40	2055
Osage County—		
Owen-Osage Oil Co.'s No. 308, SEc SW SW 10-27-11	¶	1885
No. 303, C S L SE NE SE 25-28-10	*	1906
J. R. Hadley's No. 1, C W½ SW 14-29-11	*	2090
Beacon Oil Co.'s No. 3, NEc SE 30-25-12	*	2208
E. B. Lawson's No. 10, C W L NW NW 28-25-8	2725	2684
Sand Springs Home's No. 6, SEc 21-20-11	*	225[illegible]
Stoner Bros. & Simons' No. 2, SWc 30-24-9	40	214[illegible]
Pawnee County—		
Twin State's Fleming 4, C S L SE SW 8-20-7	150	2655
Steinberger et al's Canard 1, SWc 20-19-8	¶	2512
Magnolia Petroleum Co.'s Burgman 3, NWc SE 16-20-6	45	3021
Payne County—		
Slick's Dunn 1, C NE NE SW 6-19-4	*	4194
Carter Oil Co.'s Moser 1, SWc SE NE 17-19-6	*	3167
Seminole County—		
Roxana Pet. Co.'s Berryman 1-A, C SE NE NW 10-10-8	¶	3490
Berryman 2, C SW NE NW 10-10-8	¶	3540
Carter Oil Co.'s Little 3, C SW SE NE 10-10-8	20	3575
Magnolia Pet. Co.'s Bagwell 2, C E L NE SW NW 32-8-8	156	3237
Tulsa County—		
General Pet. Eng. Co.'s Hamiltons 1, NEc 33-20-14	20	1564
Sand Springs Home's Bruner 8, SWc SE SW 6-19-12	25	2127

Kansas

Company, Well and Location	Initial Production Bbls.	Depth
Chautauqua County—		
Page Bros.' Green 1, NEc NW SE 18-32-10	50	2146
Malone 1, SEc SE NE 18-32-10	700	2050
Gledden et al's Elroyd 1, SEc NE SE 24-33-10	*	2178
Noble O. & G. Co.'s Good 1, C W L SE NE 31-34-10	¶	1095
Cowley County—		
Marland Refg. Co.'s Wright 2, C SW NW NW 10-33-3	113	2565
No. 2, SEc NE NE 9-33-3	125	2564
Alcorn O. & G. Co.'s Dunbar 1, NEc SW 29-30-5	*	3180
Elk County—		
Emperial Drlg. Co.'s Boughman 1, NWc SE 4-29-10	*	2540



JUST OFF THE PRESS

PETROLEUM ENGINEERING

—By—

ROBERT WILLIAM PHELPS *and* FRANCIS WILBUR LAKE,

Petroleum Engineers

The essential portion of the petroleum industry, that of bringing the petroleum to the surface, is accomplished by the men in the field, whose work is greatly facilitated by the application of pertinent technical data. It was for the purpose of offering this data in practical form that this book was written. This book presents in clear terms the relation between the basic theories and laws of geology and those of petroleum geology, and their application in the occurrence and extraction of petroleum from its natural reservoirs, through to the economic phase of the industry; together with many tables and alignment charts which are applicable to petroleum engineering.

561 pages, fabrikoid, postpaid $5.00

— SEND YOUR ORDER TO —

THE GULF PUBLISHING COMPANY

P. O. BOX 1307 HOUSTON, TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
Clark Oil Co.'s Lawyer 1, NEc SE 35-30-9	15	2351
Kurtz et al's Rader 1, NEc SE 5-30-12	*	1839
Deitrich et al's Smith 3, SWc SE NW 34-29-9	15	2330
Pennok Oil Co.'s Beatly 2, SWc NE 30-30-11	*	1928
Mitchell & Ark. Fuel Co.'s Perkins 1, C SW SE 28-29-9	¶	1750
Lemon et al's Wheeler 1, C SW NE 28-29-9	*	1508
Ohio Fuel Oil Co.'s Smith 1, C NW SW 22-29-9	¶	1546
Greenwood County—		
Allen et al's Kipfer 1, SEc SW NE 13-22-10	175	2149
York State Oil Co.'s De Malorie 10, C NW NE SW 32-22-11	30	2007
Phillips Petroleum Co.'s Teeter 2, C NE SW NE 15-23-9	150	2369
Ross & Wahn's Dimick 1, NWc 26-26-9	*	2343

Eastern States

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
Greene County—		
Manufactures Light & Heat Co. D. H. D. Chess 1	¶2	....
Maxin & Davis T. J. Peterson 2	¶2	....
John Blair W. J. Bryner 6	¶2	....
Kennedy-Breck Oil & Gas Co. S. J. Lomley 1	¶1½	....

NEW YORK

Company, Well and Location	Initial Production Bbls.	Depth
Dunkirk Field—		
Unknown Parties, Richter Bros. 1	¶1	....

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
Ritchie County—		
Mason Oil Co. A. R. Phillips 1	*	....
Carnegie Natural Gas Co. W. F. Bird 1	¶2	....
Hope Natural Gas Co. Trammer 1	¶2	....
Ruth & Strong A. Dunlavey 1	¶1	....
Braden, Powell & Co. McDonald 1	¶2	....
Adams Oil Co. J. Newbrough 5	25	....
Pittsburgh & West Virginia Gas Co. J. H. Heflin 1	*	2630
Southern Oil Co. Lemon Heirs 1	3	....
Lewis County—		
White Oak Oil Co. F. L. Bend 1	*	2900
Crystal Oil Co. J. Hammer 1	¶2	....
Pittsburgh & West Virginia Gas Co. J. W. Wilson 2	¶2	....
Hope Natural Gas Co. H. M. Ward 1	¶¼	....
Mud Lick Oil Co. S. T. Perrine 1	¶2	....
South Penn Oil Co. Tillman Clemons 2	*	....
Wm. Burnside 2	*	....
Kanawha County—		
Pure Oil Co. Williams Coal 199	45	....
United Fuel Gas Co. G. W. Osborne 1	¶½	....
L. W. Seabolt 7	¶1	....
J. & D. Canterberry 1	¶1	....
W. A. Bradford 1	¶2½	....
Fannie Boyd 1	¶2	....
Harrison County—		
Grasselli Chemical Co. Chas. Blair 1	¶2¼	....
G. & M. Lawson 1	¶2¼	....
Bridgeport Land & Coal Co. Marshall Jansz 1	¶2	....
Manufacturers Light & Heat Co. Chieftain Coal 1	¶2½	....
Reserve Gas Co. Peter Westfelt 1	*	....
J. M. Johnson & Son C. Bailey 1	¶2	....
Gilmer County—		
Hope Nat. Gas Co. L. B. Moore 1	¶1½	....
J. W. Wood 1	¶2½	....
F. C. Gainer 5	¶2	....
Hope Construction & Refg. Co. W. W. Floyd 1	¶3½	....
Carnegie Natural Gas Co. L. Fitzpatrick 1	¶2	....
Tyler County—		
A. L. McCullough Rebecca Barker 1	10	....
Margan Bros. Terry Heirs 1	¶2	....
Albert Neely J. B. Rewart 1	¶1	....
Wood County—		
Rowland & Co. Spencer 1	*	....
A. J. Ash James Ingram 1	*	....
L. P. Bickel & Son Louis Alleman 1	10	....
Wirt County—		
G. L. Cabot A. W. Thorne 1	*	....
Hock Oil Co. Samson George 1	*	....
Endeavor Oil Co. W. H. Wheaton 4	2	....
Doddridge County—		
Pittsburgh & W. Va. Gas Co. Jackson-Leeson 1	¶1	....
Dick Perine 1	¶2	....
D. E. Baker & Co. M. E. Ash 1	2	....
Calhoun County—		
Euclid Oil Co. Creed Yoak 2	7	....
Chemical Oil Co. Robert Rogers 2	¶2	....
Hope Natural Gas Co. Jarvis 1	2	....
Wetzel County—		
Manufacturers Light & Heat Co. Sarah Bartray 3	¶2½	....
Hope Construction & Refg. Co. Mose Bartray 3	¶2½	....
Gordon Oil Co. Morgan May 1	*	....
Marion County—		
Owens Bottle Machine Co. Jesse Brock 1	¶¼	....
Grasselli Chemical Co. M. R. Lodge 4	¶3	....
Manufacturers Light & Heat Co. Peter McDevitt 2	*	....
Roane County—		
Carter Oil Co. Spencer 1	*	....
Cromwell Oil & Gas Co. O. F. Taylor 1	¶2¼	....
United Fuel Gas Co. H. A. Smith 1	¶2½	....
Boone County—		
South Penn Oil Co. Yawkey-Freeman 1	¶2	....
Black Band Coal 1	¶1½	....
Braxton County—		
West Va. Central Gas Co. C. G. Reckett 2	¶4	....

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Monroe County—		
California Oil Corp. E. McNeice 2	3	....
Ray Batimus James Drake 1	2	....
Noble County—		
Cain & Devol Oil Co. Harper 2	*	....
William Patton & Co. Grover Hoskins 2	5	....
Washington County—		
Peoples Banking & Trust Co. F. P. Rake 15	10	....
Coshocton County—		
Ohio Fuel Corp. Charles Williams 1	¶	4448

Costs Less, too

THIS Safety Hook affords every protection that mortal man could ask or devise. It's so simple that any child could operate it, and so strong that no load can tax it.

It has no trigger work to run up the manufacturing cost and for the field man to understand and keep in order.

It's the plain, clean-cut piece of equipment that the picture shows it to be. Your dealer has it, and will refund your money if you're not satisfied.

Or you can find out all about it by writing to the Walter O'Bannon Co., Sole Distributors, 817 E. First St., Tulsa, Oklahoma.

GOOD PEOPLE TO DO BUSINESS WITH

Pelican Well Tool & Supply Co.

General Offices: Shreveport, La.

EVERYTHING
FOR THE OIL WELL

Operators in the oil fields in this territory have found that the many facilities we maintain assure them at all times

A DEPENDABLE SOURCE OF SUPPLY

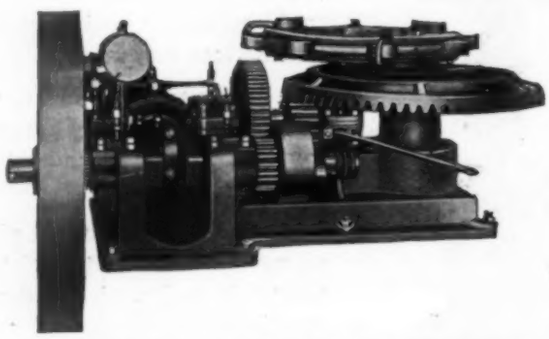
Peden supplies have had a large part in the development of the oil fields of Texas. With our years of experience in meeting the requirements of these fields we are in a position to serve best. Send us your orders or write today for prices and information.

"We Ship Quick"

The Largest Supply House in the Southwest

PEDEN IRON & STEEL CO.

HOUSTON SAN ANTONIO
FT. WORTH SHREVEPORT



"THE SPENCE"

A combined gas engine and single eccentric pumping power, with a 10½-H.P. Gas engine, positive governor, gravity feed lubrication and Wico ignition for gas or gasoline equipment. In refinement of construction and efficiency and simplicity of operation this is the best power of its kind on the market. Will satisfactorily operate four two-thousand-foot wells. Price, $650.00.

We also manufacture the Reliable Combined Engine and Power, similarly constructed and fully equipped for gas or gasoline with Wico Igniter of which over one thousand are in successful operation. Will pull a load equal to four twelve-hundred-foot wells. For all practical purposes as satisfactory and efficient as "The Spence" Power. Price, $450.00.

Manufactured and Sold by

THE SPENCE MACHINE CO.

Parkersburg, W. Va.

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Athens County—		
Shade River O. & G. Co. F. W. Chapman 10	*	1109
Dunham Bros. E. Bryon 1	*	1158
Ohio Fuel Gas Co. Oscar Clark 2	¶2	....
Fisher Oil & Gas Co. Had Hibbard 2	5	....
J. C. Wilkes 1	5	....
Townsend Oil & Gas Co. E. Smith 5	5	....
Wilkins Oil & Gas Co. G. W. Earhart 1	¶½	....
Licking County—		
Ralph Bros. Inc. G. S. Smith 5	5	....
Bishop & Co. M. J. Gutridge 1	3	....
T. H. Rugg & Co. J. I. Hughes 5	3	....
Wehrle Interests McClelland 3	¶1	....
Wayne County—		
Klise-Eckstein-McCann Co. M. Yonker 1	¶½	....
Arthur & Mills Snell 2	¶½	....
Burton-Morgan & Stephens J. Bowers 1	¶½	....
Hocking County—		
Ohio Fuel Supply Co. E. E. Ingler 1	*	....
Red Top Oil & Gas Co. Chute Heirs 6	10	....
Holmes County—		
East Ohio Gas Co. C. M. Shanks 2	¶1½	....
Albert R. Mackey 1	¶½	....
Ohio Fuel Gas Co. Chas. Barnes 3	¶1	....
Lorain County—		
East Ohio Gas Co. Robert Nesbit 1	*	....
Ohio Fuel Gas Co. C. & E. Harold 2	¶1	....
Knox County—		
Cline Bros. Fred Veatch 3	30	....
Coshocton County—		
Bell Bros. & Co. Cunningham & Harbig 1	¶¼	600
Jackson County—		
Ohio Fuel Supply Co. Stewart-Cherrington 1	¶¼	....
Cuyahoga County—		
East Ohio Gas Co. T. Francis 1	*	....

NORTHWESTERN OHIO

Ottawa County—		
Zorn-Hornung Oil Co. C. Kineriam 1	*	....
Reynolds Oil Co. Reynolds 3	14	1320
River Oil Co. E. Bushman 3	13	1315
Mercer County—		
J. A. Metzger S. Fetters 3	10	1231
Delta Oil Co. A. Miller 1	2	1220
P. Klingshorn, Klingshorn 1	¶2	1200
Hardin County—		
Roundhead Oil & Gas Co. E. McArthur 2	40	....
Schmidt & Co. Lee Darby 2	¶¼	1451
Hancock County—		
Rainey Oil Co. Rainery 11	15	1334
Bath Township Oil Co. Ada C. Hoyt 1	10	1364
Wood County—		
Johnson, Hummell & Co. Charles Geldine 2	3	1242

INDIANA

Jay County—		
Queen City Oil & Gas Co. Mrs. Black 1	30	1200
D. L. Thompson & Co. Brunson 1	2	1145
American Engineering Co. James Sutton 1	5	1160
Adams County—		
D. L. Thompson & Co. John Kelley 1	30	1127
W. J. Heeter J. H. Barr 4	2	1131
Wells County—		
Lewis Oil Corp. J. E. Davis 11	10	1200
Delaware County—		
DeSoto Oil Syndicate Goings 9	3	1110
Randolph County—		
Hartford Oil & Gas Co. Carmine 1.	*	990

ILLINOIS

Wabash County—		
Wirebaugh & Co. J. Robinson 1	75	1465
Clark County—		
Gillette Oil Corp. Reisinger 2	30	1419
Crawford County—		
Curtis, McGhee & Co. Neeley 1	*	1100
Marion County—		
Fox-Alspach Oil Corp. Benoist 1	*	1608

KENTUCKY

Kentucky wells shut down and no new completions reported from that state during the week.

Save Your Rods and Tubing

Use the

- DIKART -

Combined Rod Coupling and Protector

It Will

Stop That Rod and Tubing Wear

Construction:

Special Bronze Bearing Metal cast around the rod coupling, making a one piece unbreakable bearing, something that is absolutely safe to run in the hole.

This Bearing not only saves the rods and tubing but eliminates to a great extent the pin breakage.

Giving wonderful service in the deep pumping wells of California, being used by

THE STANDARD OIL CO.
ASSOCIATED OIL CO.
UNION OIL CO. OF CALIFORNIA.
MARINE OIL CORPORATION.
GEO. F. GETTY
and many others.

PRICES:

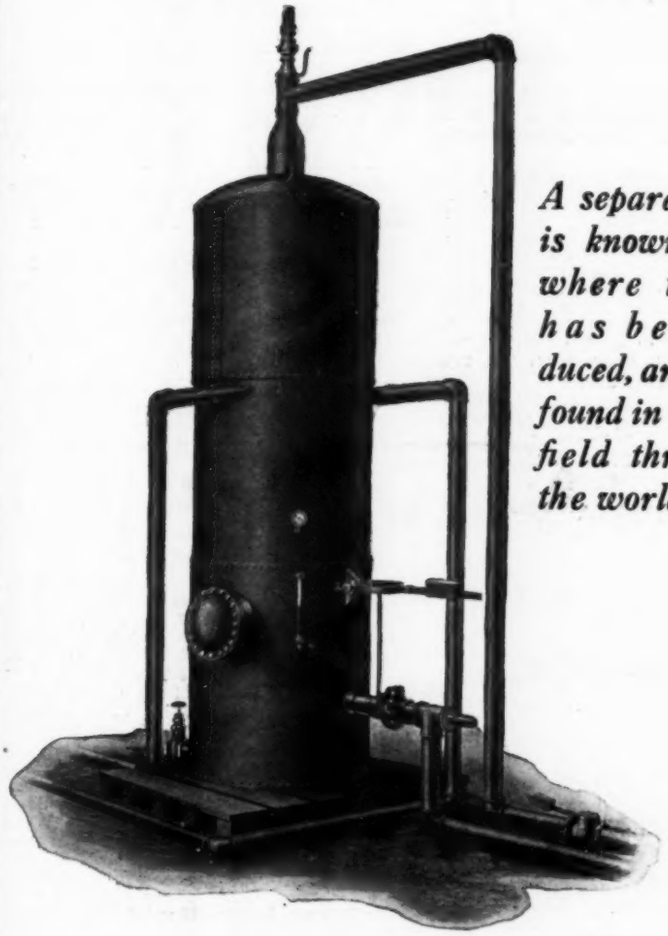
Size Tubing	Box	Prices
2 in.	⅞	$2.00
2½ in.	⅞, 1, 1⅛	$2.25
3 in.	1, 1⅛	$2.75

When ordering state make and size of Rods.

A. H. BRANDON

643 Mesquit St.
Los Angeles California

The Trumble Will Save Your Oil and Increase Your Profits



A separator that is known everywhere that oil has been produced, and can be found in every oil field throughout the world.

Trumble Gas Trap Company

William C. Rae, Sales Manager, 804-808 Higgins Bldg., Los Angeles, California
Telephones Metropolitan 1902-1903

Eastern Representative: C. F. Camp, 14 East 7th Street,
P. O. Box 289, Tulsa, Oklahoma

Crude Oil Emulsions Successfully Treated

- - - by the - - -

Electrical Dehydration Process

• Analysis, Tests, and Estimates Furnished •

PETROLEUM RECTIFYING
COMPANY OF CALIFORNIA
308 UNION OIL BLDG.
LOS ANGELES, CALIFORNIA
336 Humble Building, Houston, Texas

Permits Granted and Locations for New Wells

(California—Kansas—Oklahoma—Texas—Arkansas—Louisiana)

ARKANSAS

Hempstead County—Grassy Lake Oil Assn's Hempstead County Gun Club 1, 27-12-27, 450 ft N and 60 ft W of SEc SW¼ SE¼.

Nevada County—Garrett et al's Snell 1, 10-12-23, 200 ft S and E of NWc SW¼ SE¼. Smitherman & McDonald's McKinney 8, 10-14-21, 660 ft S and 150 ft W of NEc SE¼ NW¼.

Ouachita County — Arkansas Drilling Co.'s Reynolds B-1, 24-15-17, 275 ft N and 165 ft E of SWc S½ SW¼ NW¼. Gulf Ref. Co.'s Warner A-7, 26-15-17, 2440 ft N and 1120 ft E of SWc of SEc. Houston Oil Co.'s Hinton 3, 5-16-15, 200 ft N and W of SEc SE¼ NW¼, old well to be deepened. Hunt et al's Greene B-5, 23-15-17, 200 ft N and E of SWc NE¼ SW¼; Haltom 2, 23-15-17, 330 ft N and E of SWc of Section. Penquin Oil Co.'s Hardin 2, 27-15-16, 200 ft S and W of NEc SW¼ NE¼. The Texas Co.'s W. A. Smith 8, 31-15-16, 200 ft N and W of SEc SE¼ SW¼.

Union County—Doren et al's Bradley 1, 4-19-16, 200 ft N and W of SEc SE¼ NW¼. Natural Gas & Pet. Corp.'s Lawton 1, 10-16-15, 150 ft S and E of NWc SW¼ SW¼, old well to be deepened.

LOUISIANA

Ascension Parish—Empire Gas & Fuel Co.'s United Lands Co. 1, 22-10s-4e, 330 ft S and 330 ft W of NE Cor. of SE¼.

Bossier Parish—Arkansas Natural Gas Co.'s S. H. Bolinger 1, 38-23n-11w, 500 ft S and 500 ft E of NW Cor. of Lot 23. G. E. Coker's Roades 1, 31-21n-11w, 200 ft W and 200 ft S of NE Cor. SW¼ of SW¼.

Jefferson Davis Parish—Alex Carroll, et al's Severin-Doise 2, 28-7s-4w, 171 ft N and 152 ft E of SW Cor. of NW¼.

Webster Parish—Humble Oil & Ref. Co.'s Bodcaw Lbr. Co. B-11, 13-21n-10w, 300 ft E and 990 ft N of NW Cor. NE¼ of SE¼. Louisiana Oil & Ref. Corp.'s Bodcaw Lbr. Co. 1, 13-21n-10w, 330 ft N and 320 ft W of SE Cor. SW¼ of NE¼. The Ohio Oil Co.'s Bodcaw Lbr. Co. 16, 13-21n-10w, 330 ft S and 330 ft W of NE Cor. NW¼ of SE¼. The Texas Co.'s R. M. Lewis 1, 25-23n-10w, 1980 ft W and 660 ft N of SE Cor. of Sec.

OKLAHOMA

Creek County—Gypsy Oil Co.'s No. 1, C W L NW NW 27-14-9. Pulaski Oil Co.'s No. 8, SWc NE 8-13-8. Simmons et al's No. 1, NWc SE NE 33-15-10. Jackson & Wise's No. 3, SEc NE NW 21-16-9. Henry Oil Co. et al's No. 1, NWc SW SE 34-16-12. J. H. Wright No. 7, SEc NE SE 24-17-10. C. J. Wrightsman No. 1, SWc NE 33-17-10.

Hughes County—Cosden Oil & Gas Co.'s No. 4, Alexander, C SE SE NW 3-9-9. Phillips Petroleum Co.'s No. 2 Arber, C NE NE SE 3-9-9. Mutual Oil Co.'s No. 4, Carter, C NE NW NW 4-9-9. Transcontinental Oil Co.'s No. 9, Ogle, C SE NE NE 4-9-9. E. P. Hawkins No. 1, L. Dunzy, C NE NE NW 23-9-10.

Kay County—Harold Petroleum Co.'s No. 1, Kilby, SWc SE 4-27-1w. Blackwell Oil & Gas Co.'s No. 2, Geiger, NWc NE 9-27-1w. Comar Oil Co.'s No. 2, Duncan, C SE NE SW 21-29-1w; No. 5, same farm, C NE SE SW 21-29-10w. Comar No. 4, McCormick, C SW NW SE 21-29-1w. Gypsy Oil Co.'s No. 1, Frost, SWc NW 22-29-1w.

Muskogee County—Prairie Oil & Gas Co.'s No. 2 Stout, C SE NE NW 3-14-15.

Osage County—Phillips-Skelly No. 1, NWc NE 34-29-11, Simons No. 3, C SW NE NE 35-29-11. Owen Osage No. 311, C W L SW SW 30-28-11.

Pawnee County—Cosden Oil & Gas Co., No. 10, School Land, SWc NW 16-20-7. Haley, Garber & Pulse No. 1, Beck, NEc SW 5-23-5.

Seminole County—Cosden Oil & Gas Co. No. 8, Jackson, C NW NW SW 4-10-8. Gypsy & Laurel companies No. 1, J. Williams, C SE NE NW 4-10-8. Gypsy-Laurel No. 5, Pixico, C SW SW NW 4-10-8. Berry Petroleum Co., No. 1, Cleperney, C SW SW NE 31-11-8. Mutual Oil Co., No. 3, Pierce, C NE SW SE 33-11-8. Pure Oil Co., No. 2, Pierce, C SW SE SW 3-11-8.

Tulsa County—Mary Oil & Gas Co., No. 5, SWc SE NW 5-19-12. Hamilton et al No. 6, SWc NW 32-18-13.

TEXAS

Archer County — Gulf Production Co.'s P. Siegel No. 6, Sec. 22, Amer Trib sur, 300 ft E No. 3; Oil Inv. Co. No. 7, blk 125, J. Harris sur, 300 ft E No. 3; A. P. Nichols No. 3, blk 30 Amer Trib sur, 300 ft W No. 2; E. S. Monohan No. 4, 1599 TE&L sur, 150 ft to N and W lines; V. E. Stamfli No. 1, 2408 TE&L sur, 150 ft to S and W lines. P. F. Gwynn's M. E. Rogers 2-B, 1600 TE&L sur, 150 ft to N and E lines; M. E. Rogers 1-B, same sur, 150 ft to N and W lines; J. A. Wood No. 3, 2406 TE&L sur, 314 ft N No. 1; M. E. Rogers No. 5, 1600 TE&L sur, 314 ft S No. 3. Davis Farm Oil Co.'s C. L. Davis No. 6, D. White sur, 330 ft N No. 6; C. L. Davis No. 7, same sur, 330 ft N No. 4 Mutual Oil Co.'s H. Harmel No. 5, 2401 TE&L sur, 315 ft S No. 2. C. H. Verschoyle's L. F. Wilson No. 9, blk 27, Amer Trib sur, 300 ft to N and 450 ft to E line. White Bros.' J. M. Kunkel No. 1, S. G. Hardaway sur, 150 ft to S and W lines. C. Andrade's W. Greenway No. 1, 2402 TE&L sur, 150 ft to S and W lines. E. T. Sheegog's W. L. Andrews No. 1, J. Collingsworth sur, 500 ft to W and 2020 ft to S line. Panhandle Ref. Co.'s C. L. Davis 1-C, Jas. Hopkins sur, 150 ft to S and W lines. Young & Looney's L. D. Lasater No. 1, M. Pickens sur, 750 ft to N and 150 ft to W line. United Central Oil Corp.'s J. F. Rogers 1, 2407 TE&L sur, 150 ft to N and E lines. Day & Sullivan's J. H. White 3, blk 41, Amer Trib sur, 300 ft W No. 1. C. B. Jetter's J. H. White 3, blk 41, Amer Trib sur, 300 ft E No. 1. R. R. Robertson's Mrs. F. Brezina 1, 2410 TE&L sur, 150 ft to S and E lines. Mid-Kansas Oil & Gas Co.'s L. F. Wilson No. 1, sec 94, Amer Trib sur, 175 ft to S and E lines. Roxana Pet. Corp.'s J. M. Kunkel No. 2, blk 8, McCoy sur, 150 ft to S and E lines; J. M. Kunkel No. 3, same sur, 460 ft to W and 150 ft to S line; J. M. Kunkel No. 4, same sur, 460 ft to E and 150 ft to S line.

Bexar County—Texas Southern Oil & Dev. Co.'s O. L. Avant No. 2, Cunningham sur, 150 ft to N and E lines. Southern Nat. Gas Co.'s T. G. Oliver 13, sur 4, 833 ft E No. 12. Somerset Crude Oil Co.'s R. B. Touchstone 5, F. Rolen sur, 150 ft to S and W lines.

Brazoria County — Hyde Prod. Co.'s McGregor 6, Geo. Tennille sur, 70 ft to E and 60 ft to N line.

Callahan County—Texas Co.'s H. Wagley No. 7, 2997 TE&L sur, 150 ft to S and E lines; H. Wagley 8, same sur, 150 ft to S and W lines. Robert Sweeney's J. Nueman 1, H&L Pre-Emption sur, 155 ft to W and 425 ft to N line. Godley Oil & Gas Co.'s C. B. Kennedy 3, sec 8, Bayland Asy sur, 150 ft to S and E lines; R. L. Buchanan 5, same sur, 300 ft W No. 4; R. L. Buchanan 4, same sur, 150 ft to S and 750 ft to W line. Electra-Callahan Oil Co.'s H. H. Ogle 4, 2974 TE&L sur, 300 ft to S and 150 ft to W line. B. A. Duffy's W. M. Isenhour 8, sec 7, Bayland Asy sur, 150 ft to S and W lines. Lay & Dickey Oil Co.'s S. M. Davis 2, sec 8, Bayland Asy sur, 300 ft N No. 1. Landreth Prod. Co.'s W. M. Moore 1, 2283 TE&L sur, 600 ft to E and 200 ft to N line. Taylor & Thomas' G. C. Wood 2, 2299 TE&L sur, 450 ft to N and 150 ft to W line.

Clay County—Shelton Oil Co.'s H. Boddy 2, HT&B Ry sur, 1220 ft to W and 150 ft to S line.

Eastland County—W. H. Latta's J. C. Shahan 2, Asher sur, 3176 TE&L (Panola county); W. L. Yroger, 3176 TE&L sur, 450 ft to S and 486 ft to E line. H. M. Hickey's R. Sublett 1, Sublett & Short sur, 150 ft to N and W lines. Canyon Oil & Gas Co., Inc. & W. O. Kimble's E. J. Lamb 1, E. T. Ry sur, 300 ft to N and 1200 ft to W line.

Freestone County—Humble Oil & Ref. Co.'s R. G. Poindexter No. 1, R. B. Longbotham sur, 110 ft to S and 247 ft to W line; E. D. Crouch 5, same sur, 1152 ft E No. 3; E. D. Crouch 6, same sur, 474 ft E No. 1; E. D. Crouch 7, same sur, 474 ft E No. 6; E. D. Crouch 1-B, same sur, 150 ft to N and W lines; E. D. Crouch 2, same sur, 150 ft to W and 386 ft to S line; E. D. Crouch 3, same sur, 472 ft S No. 1; Mrs. L. Manning 2, S. McAnulty sur, 150 ft to S and W lines; Mrs. L. Manning 3, same sur, 300 ft N No. 2; Mrs. L. Manning 4, same sur, 150 ft to S and 956 ft to W line; Mrs. L. Manning 5, same sur, 393 ft E No. 4; Mrs. L. Manning 6, same sur, 413 ft E No. 5; Mrs. L. Manning 7, same sur, 150 ft to N and 544 ft to W line; E. Edwards 1, R. B. Longbotham sur, 148 ft to E and 219 ft to S line; L. B. Finch 3, S. McAnulty sur, 150 ft to S and 532 ft to W line; R. G. Poindexter 2, R. B. Longbotham sur, 150 ft to N and W lines; N. H. Lindley 1, same sur, 150 ft to W and

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California:

	Number of Wells for Week Ending															
	Sept. 19	Sept. 26	Oct. 3	Oct. 10	Oct. 17	Oct. 24	Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3
Kansas	14	23	21	25	16	12	30	38	23	36	33	44	12	22	15	..
Oklahoma	63	60	66	43	32	47	53	77	61	56	53	68	54	62	37	32
Arkansas	13	12	7	7	16	14	12	9	17	16	16	13	21	21	15	12
Louisiana	12	14	5	10	9	5	19	11	10	11	23	14	11	..	13	8
Texas	78	110	96	86	107	129	103	111	150	111	156	100	146	281	165	...
California	14	19	21	18	22	17	20	23	17	16	14	21	19	26	25	13
Total	194	238	216	189	202	224	237	269	278	246	295	260	263	412	270	65

775 ft to N line; N. H. Lindley 2, same sur, 150 ft to W and 960 ft to N line; N. H. Lindley 1, same sur, 150 ft to S and W lines; N. H. Lindley 2, same sur, 150 ft to W and 780 ft to N line; E. D. Crouch 1, same sur, 150 ft to S and E lines; E. D. Crouch 2, same sur, 170 ft to N and W lines; E. D. Crouch 3, same sur, 150 ft to N and E lines; T. B. Poindexter 1, same sur, 150 ft to N and E lines; T. B. Poindexter 4, same sur, 150 ft to N and W lines; T. L. Simmons 1, same sur, 150 ft to S and E lines; N. G. Ferguson 1, same sur, 150 ft to W and 917 ft to N line; Ella Dodd 1, same sur, 150 ft to N and E lines; E. D. Crouch 1, same sur, 1500 ft to W and 50 ft to N line; E. D. Crouch 2, same sur, 100 ft to S and W lines. Marland Oil Co.'s H. A. Hackney 1, R. B. Longbotham sur, 150 ft to N and E lines; H. A. Hackney 2, same sur, 150 ft to N and W lines; H. A. Hackney 3, same sur, 150 ft to S and W lines; H. A. Hackney 4, same sur, 150 ft to S and E lines; O. L. Hatch 1, same sur, 150 ft to N and W lines; O. L. Hatch 2, same sur, 150 ft to N and E lines; A. L. Hatch 1, blk 16, same sur, 150 ft to S and E lines; A. L. Hatch 2, blk 16, same sur, 150 ft to S and E lines of blk 20; A. L. Hatch 3, same sur, 150 ft to N and E lines blk 19; E. L. Calame 1, same sur, no lcn; E. L. Calame 2, same sur, no lcn; E. L. Calame 4, same sur, no lcn. Atlantic Oil Prod. Co.'s L. H. McCorkle 3, R. B. Longbotham sur, 300 ft NE No. 2; L. H. McCorkle 6, same sur, 375 ft E No. 4; L. H. McCorkle 7, same sur, 100 ft to S and W lines; J. W. Hinchliff 1, same sur, 100 ft to E and 150 ft to N line; J. W. Hinchliff 2, same sur, 100 ft to W and 165 ft to N line; J. W. Williams 1, blk 13, same sur, 85 ft to N and 209 ft to W line; Block 47 No. 1, same sur, no lcn; Block 6 No. 1, no lcn. Farish, Watts, Collins & Crosby's J. P. Jackson 4, blk 8, Wortham sur, 150 ft to N and W lines. Eastland Oil Co.'s H. F. Seale 1, S. McAnulty sur, 150 ft to W and 153 ft to S line. J. K. Hughes Dev. Co.'s E. D. Crouch 1, R. B. Longbotham sur, 50 ft to E and 150 ft to N line; E. D. Crouch 7, same sur, 300 ft E No. 6. Mrs. J. K. Hughes' T. L. Simmons 3, R. B. Longbotham sur, 252 ft E No. 2; T. L. Simmons 4, same sur, 252 ft E No. 1. Sun Oil Co.'s Roy Simmons 4, Wortham sur, no lcn; Roy Simmons 5, same sur, no lcn. Mass & Keeling's Simmons 1, R. B. Longbotham sur, 100 ft to S and 132 ft to W line. Boyd Oil Co.'s W. E. Smith 1-B, S. McAnulty sur, 150 ft to N and E lines. Mills Bennett's J. F. Wallis 1, blk 13, Wortham sur, 200 ft to N and 150 ft to E line. Showers & Brock's HH&E 1, Wortham Townsite, 150 ft to S and E lines; Mrs. J. Young 1, Wortham sur, 150 ft to S and E lines.

Franklin County—Arkansas Fuel Oil Co.'s J. A. Dickson 1, Thos. Williams sur, 230 ft to N and 540 ft to E line.

Fort Bend County—Gulf Prod. Co.'s B. J. Wheat 9, M. Young sur, SE cor. Union Sulphur Co.'s Fee 9, M. Young sur, 1026 ft to W line; Fee 10, same sur, 306 ft S No. 1.

Galveston County—E. K. Cade's (drilled by Sun Oil Co. of Beaumont) C-2, M. Dunman sur, 62 ft to S and W lines.

Harrison County—H. C. Morris' Mrs. C. B. Hickman 3, E. Pollack sur, 300 ft to S and 220 ft to W line. Ketching, Clark & Powell's Cramer Bros. 1, J. B. Patterson sur, 1000 ft to E and 600 ft to N line. J. L. Ferguson's J. P. Jones 1, J. Lipscomb sur, 150 ft to S and E lines.

Hardin County—Rio Bravo Oil Co.'s B. P. Bryan 3, J. B. Reeves sur, 120 ft W and 275 ft N No. 2.

Jim Hogg County—M. F. Buffum's R. Holbein 1, Las Animas sur, 150 ft to S and W lines. Witherspoon Oil Co.'s Major 2, sec 26, Las Animas sur, 150 ft to S and W lines; Major 3, same sur, 150 ft to N and W lines.

Jefferson County—Houston Oil Co.'s H. T. Staiti 5, S. Eaton sur, 250 ft S No. 4.

Johnston County—J. A. Watson & H. V. Honey's T. H. Bandy 1, G. B. Roy sur, 1800 ft to N and 500 ft to W line.

Kaufman County—Humble Oil & Ref. Co.'s Matthews 1-A, A. Reyes sur, 310 ft to N and 32 ft to W line.

Limestone County—Magnolia Pet. Co.'s N. B. Boyd 17, S. McAnulty sur, 300 ft W No. 6. Gulf Prod. Co.'s W. D. W. 1, S. McAnulty sur, 150 ft to S and W lines; T. L. Simmons 1, R. B. Longbotham sur, 200 ft to N and 150 ft to W line; E. R. Quinby 1, same sur, 126 ft to W and 139 ft to S line. Humble Oil & Ref. Co.'s L. B. Finch 1, S. McAnulty sur, 150 ft to S and E lines; L. B. Finch 2, same sur, 400 ft S No. 1.

Liberty County—Republic Prod. Co.'s Dolbear 97, J. Devore sur, 1638 ft to N and 1662 ft to E line. Texas Co.'s Fee 2, L. Guidry sur, 700 ft to E and 50 ft to N line.

Milam County—Minerva Pet. Co.'s A. B. Watson 5, T. J. Chambers sur, 363 ft SW No. 4.

Mitchell County—The California Co.'s E. Morrison 12, sec 28 TP Ry sur, 330 ft N and 990 ft E of center line; P. Elder 1, sec 15, TP Ry sur, 900 ft to S and 330 ft to W line.

Medina County—Mid-Kansas Oil & Gas Co.'s E. Kreuger 1, J. M. Thompson sur, 660 ft to N and 330 ft to E line.

McMullen County—Humble Oil & Ref. Co.'s Hargis 1, sec 467, BBB&C Ry sur, no lcn.

Orange County—Gulf Prod. Co.'s Hager & Moore 7, Wm. Dyson sur, 499 ft and 50 ft to S line.

Panola County—J. C. McCormick's J. M. Lawless 2, 200 ft to W and 200 ft to N line; J. C. Shahan 2, Jas. Asher sur, 1100 ft N No. 1.

Shackelford County—John Dietrich's B. Myrick 1, sec 47, Bayland Asy sur, south central. C. W. Wallace's G. E. Waters 3, blk 35, University Lands sur, no lcn. C. Steele's T. T. Brooks 1, sec 90, University Lands sur, 290 ft to N and 560 ft to E lines; T. T. Brooks 2, same sur, 350 ft to N and 860 ft to E line.

Stephens County—Magnolia Pet. Co.'s A. J. Jones 4, sec 25, Insane Asy sur, 330 ft to S and 465 ft to E line.

Wichita County—G. W. Cooper's G. T. Smith 3, blk 16, Cowherd Bros. sur, 300 ft W No. 1. S. Bright's F. P. Warren 2, Kepler sur, 150 ft to W and 160 ft to N line. W. H. Hammon's S. H. McCarty 1, W. R. Eaves sur, 450 ft to N and 150 ft to W line. Lucky Hill Oil & Gas Co.'s Lantensager 1, blk 16, Cherokee S. L. sur, 150 ft to S and 1500 ft to W line. Beaver Drilling Co.'s B. S. Coleman 1, blk 30, HT&B Ry sur, 750 ft to N and 450 ft to E line.

Wharton County—Gulf Prod. Co.'s C. D. Kemp 1A, S. Gilbert sur, 1000 ft to N and 125 ft to E line.

Wilbarger County—Bridwell, Heydrick & Palmer's W. H. Stephens 6, sec 83, H&TC Ry sur, 50 ft S No. 4. Gulf Prod. Co.'s W. T. Waggoner 1, sec 5, McGee, Kneass & Co. sur, 4036 ft to E and 158 ft to S line.

Webb County—Rydal Oil Co.'s Puig Bros. 5, blk 52, A. deArriba sur, 150 ft to E and 450 ft to S line. Witherspoon Oil Co.'s G. Benavides 1, sec 125, 150 ft to S and W lines.

Young County—C. P. Barton's J. Hankins 1, sec 410 TE&L sur, 150 ft to S and E lines. Magee Bros.' Boyd Bros. 1, 1455 TE&L sur, 150 ft to N and E lines. G. R. Roper et al's Grovers 1, 161 TE&L sur, 150 ft to S and W lines. Godley Oil & Gas Co.'s M. K. Graham 3, J. A. Bolton sur, no lcn. C. Andrade's S. M. Gose 1, 313 TE&L sur, 150 ft to N and E lines. C. P. Burton's S. Eichelberger 1, 1449 TE&L sur, 750 ft to W and 150 ft to N line. Union Oil Co. of Nevada's B. M. Keathley 1A, 153 TE&L sur, plugged.

Treatise on Lubricants

Lockhart's "American Lubricants" is a book written from the viewpoint of the user of lubricating oil. Special efforts have been made to include such facts and figures concerning lubricants as will best serve to bridge the gap between the refiner or manufacturer and the consumer.

Although it deals with a highly technical subject, the book is non-technical in its language to the extent that it is easy to read, and its contents easy to absorb.

The subject matter is complete. Lubrication of practically every kind of machinery in use in this country is discussed, and an analysis of the most suitable lubricant for each particular type of machine is included. Thus the theory of lubrication is given along

A Real Hard-Working Tubing Protector

Users of the S-R Tubing Protector have not only virtually eliminated rod and tubing trouble, but have reduced lifting and operating costs from 50 to as high as 500 per cent.

Made of highest grade walnut and oak and chemically treated to prevent oil or water absorption.

Fitted onto rods by ferrules made of seamless steel. Can be put on in two minutes' time.

Now in use by the Carter Oil Company, Atlantic Oil Producing Company, Sinclair, Waite Phillips and others.

Made in seven sizes: Light and Heavy.

Absolute Satisfaction Guaranteed

Manufactured and Sold by

H. RICKMAN
P. O. Box 1905
Tulsa, Oklahoma

IT CAN BE DONE

Stop Rod-Tubing Trouble

WILDCATS FROM ALL SECTIONS

Prairie Line Will Open New Shallow Oil Producing Area in North Texas

Wichita Falls, Texas, Jan. 5.—Prairie Pipe Line Company is building a four-inch pipe line from Southern Oklahoma across the Red River into Texas to run and purchase the low gravity crude recently made available in the Nocona shallow oil and gas field, Montague County, by the completion of five pumping wells scattered over an area about one mile wide and more than three miles in length. The presence of Prairie's line in the field will stimulate drilling activity to a large extent, and about 250 barrels of oil production is now available from the five wells shut in for storage. This shallow field is the only low gravity crude producing area in the North Texas district, and is destined to be long lived since two sand pays have been established at 900 and 1400 foot levels. The thickness of this sand varies from 10 to 34 feet.

Both Prairie and Sinclair Pipe Line Companies have trunk lines on opposite sides of the Nocona shallow oil field, but these lines are handling high gravity crudes produced in the Central West Texas district and it has not been considered advisable to mix in the Nocona low gravity crude, which is unusually heavy in several of the wells and gravity ranges from 22 to 32.7 degrees. Prairie's new line to the field will be about 30 miles in length, and will extend from a point near Ringling, Oklahoma, south through the shallow field on the Seay ranch in Jefferson County, Oklahoma, into Texas. Present plans are to install a field pump in the Nocona field and pump north to a larger station on the Seay ranch.

The shallow oil field was discovered last June by the Humphreys-Boyd Oil Company's Mrs. M. H. Salmon 1, W. P. Zuber survey, and tested 70 barrels of oil daily from sand at 899-902 feet, but is now shut in for storage. Texhoma Oil and Refining Company's N. J. Howard 1, John Chambliss survey, was the second shallow oil producer completed, and early last September tested 75 barrels initial production after drilling sand from 821 to 855 feet. The Texas Company's Isaac Gist 2-A, Wm. Donoho survey, widened the producing area to the west in November with an initial production of 80 barrels of 30½ gravity oil from sand at 919-29 feet, after having passed through 125 million cubic feet of gas flow in broken gas sand at 647-893 feet. This enormous gas flow was successfully cased off with extra heavy 12½ and 10-inch casings. Phil Lesh et al's Mrs. M. H. Salmon 1, Samuel Little survey, is standing with hole full of heavy low gravity oil after drilling sand at 933-44 feet, and has not been tested for volume of production, although the oil slops over the top of casing when opened up.

The most recent oil completion made in the Nocona field extended the producing area a short distance to the northeast and added a second sand at the 1400 foot level. This well was drilled by the Petroleum Producers Company on the C. H. Howard farm, Finess Robertson survey, and swabs 50 barrels of 32.7 gravity oil daily from broken sand at 1395-1401 feet and 1416-28½ feet. It is also making a small quantity of water with the oil, but probably from leaky casing seat, as the lone string of 6⅝-inch casing was set and re-run several times in testing upper sands. The Humphreys-Boyd Oil Company's Mrs. S. F. Loy 1, Wm. Donoho survey, has been shut in since last June after showing traces of oil while making 20 million cubic feet of gas from sand at 521-88 feet. The rock pressure of this shallow gas is reported at 310 pounds.

The Gulf Production Company is reported to be making preparations to drill a third test on its large block of wildcat leases, located due east and south of Nocona, after having abandoned its first two tests, with total depths of 3908 and 3535 feet, respectively. The third test will probably be located a short distance to the northeast of the first hole.

The upper part of Montague County, including the Nocona area, has been looked upon with favor by geologists for deep production for many years, and a wildcat drilling campaign launched several years ago resulted in the north half of the county being leased almost solid. The shallow oil and gas production was uncovered while making a search for the deep pay, and operators are now using star machines and stub rotary outfits in exploring this shallow pay. The gas produced in the Nocona field is credited with having a fair percentage of helium in its content, and legislation is now underway at Washington for an appropriation to enable the government to extend a gas line into the field from its present line now serving the helium plant at Fort Worth with Petrolia gas, as the gas production at Petrolia is declining rapidly.

When the pipe line outlet is provided for the shallow oil in the Nocona area the development of leases will become necessary for drainage protection, and some of the companies and individuals already represented are seeking more acreage for drilling. Humble Oil and Refining Company and the Rycade Oil Corporation (Amerada) of Houston have obtained additional protection in the field lately. Humble is reported to have paid $275 per acre for a 30-acre lease on the Mrs. M. H. Salmon farm, Samuel Little survey, and a similar price for the south 40 acres of the north 60 acres of the west one-half of the Robt. Hinds 160-acre tract, J. J. Wall survey. Humble purchased from Lester T. Burns and F. M. Gates a 40-acre lease in the southwest corner of the J. B. Oldham 428-acre tract, John Chambliss survey, for $6,000 cash and $4,000 additional in oil. Rycade is reported to have paid Bert J. Shaw $10,000 cash for 77½ acres located in three separate pieces in the Griffin Bayne, Samuel Little and L. B. Norton surveys.

---

with a description of where and how the lubricant is applied.

A brief discussion of oil, with stress on the different grades used to produce different quality lubricating oil, gives a background of knowledge that will aid in assimilating the data on lubrication proper.

Here are a few chapter headings, taken at random from the table of contents: Friction and Lubrication; Lubrication of Internal Combustion Engines; Physical Methods of Testing Lubricating Oils; Specifications for Turbine Oils, etc. There are 37 chapters.

Copies of the book are for sale by The Gulf Publishing Company, P. O. Box 1307, Houston, Texas.

Central West Texas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Brown County—		
Gillman et al Newton 6	35	1298
Mahlstedt-Mook Oil Co. Newton 3	65	1284
Callahan County—		
Kellogg Drlg. Co. Snyder 1	*	2508
Mitchell County—		
The California Co. Clark 1	200	3065
Miller 5	60	3015
I. B. Humphreys et al P. C. Coleman 1	*	3203

DRILLING REPORT

BROWN COUNTY—M. T. Anderson-Moore et al's Wheeler 1, sd making two million ft gas after shot 20 qts 2700-35 ft, td 2805 ft. Calvert et al's Prather 1, dr 650 ft. Canyon Oil & Gas Co. et al's Ellsberry 1, sd for water 1210 ft. Davis & Swartz's Newton 2, sd for water 1130 ft. Gillman et al's Newton 7, sd 1200 ft. Honea et al's E. DeBusk 2, sd 2300 ft. McMurray et al's Newton 2, rig. New Era Oil Co.'s Prather 3, sd 900 ft. Omaha Southern Oil Co.'s G. B. Gaines 2, sd 1840 ft. T. B. Slick et al's Chambers 1, dr 3020 ft.

CALLAHAN COUNTY — Byron-Union Oil Co.'s Hennessey 1, sd 4405 ft. Chas. Dutton et al's Cathey 5, dr 1505 ft; Cathey 7, rig; Harwell 1, sd 800 ft. Junior Oil Co.'s A. L. Huntington 1, sd 2280 ft. A. G. McMath et al's Isenhour 1, spd and sd. O'Donnell et al's Cathey 1, dr 1410 ft. L. D. Prewitt et al's Geo. T. Crane 1, sd with small show oil and water in sand 1875-80 ft; Crane 2, sd 1010 ft; W. W. Crane 1, sd 1565 ft; Jones 1, spd and sd. Seaboard Oil & Gas Co.'s Isenhower 2-A, dr 1185 ft.

COLEMAN COUNTY—D. R. Bailey et al's

Kelly-Grady 1, sd 305 ft. Roth & Farouth's Overall 9, dr 1195 ft.

PALO PINTO COUNTY—Ed. S. Britton & E. B. Ritchie et al's Strawn Coal Co. Fee 3, sd 3110 ft. Cameron & Anderson's W. O. Pollard 2, sd 765 ft. J. D. Cranford et al's L. Smith 1, sd 750 ft. Hughes et al's Belding 1, sd 3520 ft; Weldon 2, sd 3430 ft. Hart et al's Smith 1, dr 645 ft. Little Caddo Oil Synd.'s Massie 2, dr 925 ft; Fitzgerald 1, dr 850 ft. McKinney et al's Marsden 1, sd 465 ft. S. W. Manning et al's R. Hitson 1, sd 3675 ft. Phillips et al's Stringer 1, sd 1255 ft. Phillips & Graham's J. A. Caudill 1, co after shot 3800 ft. Wickens et al's Williams 1, sd 2515 ft.

PARKER COUNTY — G. E. LaBeaume (Trustee)'s B. C. Evans 1, (2 miles S of Whit) sd 500 ft.

SOMERVELL COUNTY — Glenrose Oil & Gas Co. et al's J. R. Buzan 1, sd 4000 ft.

BREWSTER COUNTY — Green Valley Oil Corp.'s W. A. Wilson 3, (Sec. 8, Blk. 212, T & St. L. Ry sur) dr 460 ft. Tesnus Oil Corp.'s A. S. Cage 1, sd 2555 ft. Brewster Oil Corp.'s W. H. Kokernot 1, sd 2535 ft. Portland Oil Synd.'s State 1, sd 3220 ft. Nine Points Oil & Gas Co.'s Peralto & Finnell 1, sd 3060 ft.

COKE COUNTY—West Virginia Oil Marketing Assn.'s J. R. Mims 1, bldg rig. Mexia-Equitable Oil Co.'s W. H. J. Hodges 1, sd 2500 ft.

CONCHO COUNTY — Dome Production Co.'s Mrs. C. M. Hartgrove 2, dr 300 ft. Schultz Oil Co.'s W. O. Schultz 1, sd 3225 ft.

CRANE COUNTY—Texas Dev. Co.'s Jax Cowden 1, sd 2670 ft; Cowden 2, lcn.

CROCKETT COUNTY—Josh S. Cosden et al's University 1, (Sec. 34, Blk. 12) lcn. Peer Oil Co.'s University 1, (Sec. 14, Blk 50) lcn. Kanawah-Anglo Oil Co.'s University 1, (Sec. 9, Blk. 52) rigging up. Crockett Drlg. Synd.'s Robt. Massey 1, sd indefinitely 1755 ft. World Co.'s L. P. Powell 1, sd 1310 ft.

CULBERSON COUNTY—J. D. Wesner et al's Mack Sayles 1, sd 3105 ft.

DAWSON COUNTY — Lamesa Oil Co.'s John Burns 1, sd 2150 ft.

ECTOR COUNTY—Farmers Oil Co.'s Andy Newham 1, sd 1400 ft.

EL PASO COUNTY—Burns & Knight's Fee 4, dd, dr with rotary 4800 ft.

FISHER COUNTY—Pyron Oil Co.'s J. S. McCall 1, sd 3120 ft.

GLASSCOCK COUNTY — Gulf Production Co.'s L. S. McDowell 1-C, tested 150 bbls water and 4 bbls oil 1st 24 hours at 2929 ft. Cushing Ranch Drilling Assn.'s W. H. Sparkman 1, sd 1950 ft. Ledger Co.'s C. I. Brunson 1, sd 3520 ft.

GARZA COUNTY—B. V. Blackwell et al's J. M. Boren 1, sd with oil in hole after shot 2443 ft. Mitchell-McDaniel & Jewell's Connell 1, fsh 1850 ft.

HUDSPETH COUNTY—Boole Oil Assn.'s Gardner et al 1, sd 1540 ft. Hueco-Basin Oil Co.'s University 1, sd 2650 ft. Wm. Loftus et al's Minnie Veal Slaughter 1, sd 1625 ft.

HOWARD COUNTY—Big Springs Oil Co.'s Mable O. Quinn 1, sd 3640 ft.

IRION COUNTY—Orient Oil Co.'s J. D. Sugg 1, (Sec. 27, Blk. 2, H. & T. C. sur) dr 1115 ft. Virginia-Texas Pet. Co.'s W. M. Noelke 1, (Tom Green County School Land) dr 1910 ft.

JONES COUNTY—Anson Oil & Dev. Co.'s C. B. Brown 1, sd 1855 ft. C-H Oil & Development Co.'s Cullom 1, sd 3500 ft.

KARNES COUNTY—Alidor Oil Co.'s A. W. Hyatt 1, sd 1156 ft.

LOVING COUNTY—P-V Petroleum Co.'s N. E. Chapman 1, fsh tools 715 ft. Ramsey Prod. Co.'s Russell 1, sd 4485 ft; Russell 2, sd 810 ft.

MITCHELL COUNTY — The California Co.'s Morrison 12, rigging up; Elder 1, rigging up. M. E. Eddleman et al's A. C. Gist 1, dr by tools 2930 ft. Sloan Oil Co.'s H. C. Miller 3, showing oil 2355-60 ft, dr 2625 ft. Eastland Oil Co.'s W. D. Keynard 1, (Sec. 15, Blk. 28) rig. J. T. Harris et al's W. C. Brown 1, sd 370 ft; Brown 2, running 6⅝-inch cas 300 ft.

PECOS COUNTY—Plymouth Oil Co.'s (W. E. Houston Trustee) Perry Ranch 1, rigging up second hole. Arkansas Fuel Oil Co.'s Blackstone & Slaughter 1, crooked hole 740 ft. Transcontinental Oil Co.'s Sherbino 1, co 1010 ft. Trans-Pecos Oil Co.'s H. L. Thomas 1, sd 1830 ft; W. W. Turney 1, sd 2900 ft; Johnson-Troy 1, sd 2965 ft; Bennett 1, sd 1240 ft. Southern States Lease & Prod. Co.'s J. M. Odem 1, sd 1205 ft.

PRESIDIO COUNTY—Tesnus Oil Corp.'s Toole Estate 1, sd 965 ft.

REAGAN COUNTY — Arkansas Fuel Oil Co.'s University 1, (Sec. 9, Blk. 6) sd for fsh tools, 3355 ft. Big Lake Oil Co.'s University 3, dd, plugging to abn 3105 ft; University 14, (Sec. 1, Blk 2) sd for storage 2876 ft; University 15, (Sec. 12, Blk. 2) dr 2825 ft; University 16, (Sec. 1, Blk. 2) rigging up; University 17, (Sec. 1, Blk 2) rigging up; University 18, (Sec. 25, Blk. 9) lcn; University 19, (Sec. 25, Blk. 9) lcn. Brandon-McCamey et al's University 1, (Sec. 27, Blk. 2) dr 1250 ft. B. H. Cogdell et al's University 1, (Sec. 23, Blk. 8) rig burned, td 365 ft. Crockett Drilling Synd. et al's University 1, (Sec. 9, Blk 9) sr hole to 3258 ft. The California Co.'s University 1, (Sec. 13, Blk 8) dr 2840 ft. H. S. Grayson et al's University 1, (Sec. 28, Blk. 8) dr 1165 ft. W. M. Henderson et al's University 1, (Sec. 11, Blk. 9) lcn. J. K. Hughes et al's University 1, (Sec. 5, Blk 9) dr with rotary 1600 ft. P. H. Hoffman et al's University 1, (Sec. 23, Blk. 11) sd for water 330 ft. Mid-Kansas & Transcontinental Oil Co.'s Hughes & Mason 1, (Sec. 1225, E. L. & RR sur) dr 3005 ft. Simms Oil Co.'s Sawyer Cattle Co. 1, (Sec. 12, S. A. Glass sur) spd and sd. J. T. Stover et al's University 1, (Sec. 34, Blk. 11) spd and sd. Texon Oil & Land Co.'s University 1, Group 2, (Sec. 22, Blk. 9) dr 4605 ft; University 3, Group 1, (Sec. 36, Blk. 9) top lime 2814 ft, set 5 3-16 cas 2829 ft; University 4, (Sec. 1, Blk. 8) ur cas 890 ft. Transcontinental Oil Co.'s University 1, (Sec. 10, Blk. 1) sr to 3370 ft. University Oil Co.'s University 1, (Sec. 17, Blk 10) sd for cas 2315 ft. C. J. Wrightsman et al's Ingham 1, (Sec 39, Blk "C", L. & S. V. Ry sur) sd 305 ft.

REEVES COUNTY—Dome Drilling Synd.'s Ira J. Bell 1, dr 625 ft. Dixieland Oil Co.'s Oates 2, sd 4505 ft.

RUNNELS COUNTY—Subscribers Assn.'s Russell-Giesezke 1, sd 2876 ft.

SCURRY COUNTY—Camp Springs Oil & Ref. Co.'s W. Y. Jones 1, sd 600 ft; J. O. Quinn 1, sd 3570 ft; L. E. Howell 1, lcn. Hermleigh Oil & Gas Co.'s J. W. Burris 1, sd 2965 ft. Stanton Oil & Gas Co.'s J. W. Riley 1, sd 2500 ft.

STERLING COUNTY—Ford & Gogdell et al's W. L. Foster 1, sd for 10-inch cas 920 ft. Chicago-Texas Oil & Gas Synd.'s D. C. Durham 1, sd 1427 ft; Durham 2, sd 1406 ft. Co-Operative Lease & Dev. Co.'s Douthitt 1, sd 2000 ft. Fidelity Oil Co.'s G. R. Hull 1, setting cas 1708 ft. John W. Sward et al's L. T. Clark 1, machine.

STONEWALL COUNTY—Elder Nance et al's Ward Estate 1, traces gas 1510 ft, dr 1550 ft.

TAYLOR COUNTY—Sanger Oil & Ref. Co.'s McClure 1, lcn; S. P. Hollingshead 1, sd 1710 ft; Tom Sawyer 1, sd 2700 ft.

TERRELL COUNTY—R. E. Dunn et al's Fee 1, dr 405 ft. Southwest Texas Oil & Gas Co.'s Fee 1, sd 3515 ft.

UPTON COUNTY—Big Mesa Oil Co.'s University 1, (Sec. 17, Blk 3) spd and sd. W. P. Morris et al's H. M. Halff 1, spd and sd. Bell-Regan et al's University 1, (Sec. 2, Blk. 4) sd for cas 315 ft. Suggs & Chancellor's University 1, (Sec. 8, Blk. 4) spd and sd. Virginia-Texas Petroleum Co.'s University 1, (Sec. 14, Blk. 15) sd 3000 ft.

VAL VERDE COUNTY—East Del Rio Oil Co.'s Russell & Weathersbee 1, sd 2605 ft. Independent Operators' Whitehead 1, sd 2155 ft. Joe W. Morris et al's Moore Estate 1, sd 2280 ft. Re-Clamation Oil Prod. Co.'s J. B. Moore 1, sd 2575 ft. Hodges & Wright's B. S. Harrison 1, sd 1100 ft.

WARD COUNTY—Cook & O'Brein's G. W. O'Brien 1, sd 1175 ft.

East Central Texas Wildcats

DRILLING REPORT

BOWIE COUNTY—Geo. B. McCullough & Roell's W. R. Williams 1, (L. M. Rice sur) spd and sd. Williams et al's Daulby 1, sd 2050 ft. Delaney Oil & Gas Co.'s Rochelle 1, (Collin-McKinney sur) fsh 2290 ft.

FALLS COUNTY (Kosse District)—C. W. Harrison et al's J. W. Preston 1, (H. Anderson sur) dr 3000 ft.

FANNIN COUNTY—Lester Pet. Co.'s S. D. Graves 1, (Wm. Hutchins sur) dr 2430 ft.

FRANKLIN COUNTY—Arkansas Fuel Oil Co.'s J. A. Dickson 1, (Thos. Willison sur) spd. Marshall & DeGenther's Swanner 1, (Hanks sur) sd for cas 1800 ft.

HENDERSON COUNTY—Fred E. Haynes et al's E. G. Bounds 2, (Henry Jeffreys sur) sd 2000 ft.

HOPKINS COUNTY — Gulf Production Co.'s W. J. Davis 1, (Jas. Clark sur) Pecan Gap chalk at 1533 ft, Austin chalk 2770-2818 ft, dr 3035 ft. Bar-Tex Drilling Co.'s C. H. McClure 1, (D. Waggoner sur) rig. Stough & Potts et al's J. R. Fitzgerald 1, (John Binnion sur) sd 1610 ft. C. A. Kelsey et al's Addie Brooks 1, (D. Dowdle sur) fsh 1825 ft.

HUNT COUNTY—Gulf Production Co.'s M. E. Alexander 1, (E. Tidwell sur) top Austin chalk 1807 ft, dr chalk 1975 ft; W. B. Bryan 1, (Jas. Cole sur) ready to spud.

KAUFMAN COUNTY—Marland Oil Co.'s R. E. Kenshale 1, (B. S. Newman sur) spudding. J. A. Germany et al's W. S. Kirby 1, (S. Edens sur) sd indefinitely 3255 ft.

LAMAR COUNTY—Interstate Oil Co.'s Ben Haynes 1, (Larkin Rattan sur) steel dk.

NAVARRO COUNTY—Bankers Trust Co.'s McCormick 1, (18 miles NW of Corsicana) sd 1829 ft. Alex Patrick & A. G. Ilseng et al's W. L. Roberts 1, (Jos. Mayor sur) sd 1740 ft. Elliott & Nicolle's D. J. Westbrook 1, (Henry H. Horn sur) East Bazette district, sd 1540 ft. Sun Oil Co.'s Earnest Swink 1, (S. Richland district) Austin chalk 2512-2658 ft, broken chalk to 2707 ft, drilling out plug 2901 ft. Moore Bros et al's Mrs. E. R. Quinby 1, (Q. N. Anderson sur) NW of Currie, gas blowout 1245 ft.

RAINS COUNTY—Mrs. Ferguson & Short Bros.' W. D. Peeples 1, (J. A. Tibbles sur) spd and sd.

RED RIVER COUNTY—Johnson Pet. Co.'s Antone & Worley 1, (Robt. Gamble sur) sd 3590 ft.

ROCKWALL COUNTY—M. H. West-J. J. Johnson & G. C. Rochelle's J. S. Shook 1, (S. S. McCurry sur) 1 mile NE of Rockwall, dr by cas 2510 ft, td 2970 ft.

TITUS COUNTY—Magnolia Pet. Co.'s Geo. Antone 1, (M. V. Delgado sur) dr 1370 ft.

VAN ZANDT COUNTY—Freestate Oil Co. (was Porter-Holmes et al)'s J. T. Dunbar 1, (Van Sickle sur) dr 3485 ft.

WOOD COUNTY—Golden Oil Co.'s J. D. Adrian 1, (Hallmark sur) sd 3850 ft.

North Texas Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Graza County—		
B. V. Blackwell et al's J. M. Boren 1	25	2455

DRILLING REPORT

BAYLOR COUNTY—Dallas Oil Co.'s Shawver Bros. 1, sd 1885 ft Lehman et al's Shawver Bros. 1, sd 935 ft. Magnolia Pet. Co.'s W. H. Portwood 2, preparing to pump, sand 1410-13 ft, 200 ft oil in hole. Stanley McGregor's E. S. Wallace 1, sd 1005 ft. Richardson Bros. et al's Wallace Estate 1, sd 220 ft. Texhoma Oil & Ref. Co.'s W. H. Portwood 1, dr 330 ft.

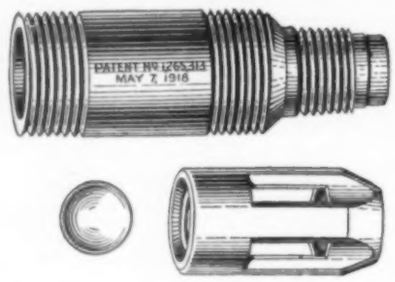
CLAY COUNTY—Ashcraft et al's W. H. Chilson 1, dk. Atlantic City Prod. Co.'s Scaling 1, sd 2890 ft. J. T. Cumley's N. C. Camp 1, sd 1802 ft. L. R. Dixon et al's R. H. Godfrey 2, spudded. E. C. D'Yarmett's Scott 2, dr 800 ft. Knox Finley Dev. Co.'s Scott 4, dr 1000 ft. Lone Star Gas Co.'s Lockridge 2, sd 1525 ft. Norris & D'Yarmitt's J. Stephenson 1, sd 1260 ft. J. O'Neil's O. A. Ross 1, dr 2100 ft. Piedmont Oil Co.'s Dean 1, sd 1210 ft. Shelton Oil Co.'s H. Boddy 1, sd 1370 ft. Somers & Nantz's Mary C. Parker 1, sd 1000 ft.

COOKE COUNTY—Big Indian Oil Co.'s W. B. Davis 1, sd 3525 ft.

DENTON COUNTY—Arbuckle Asphalt & Pet. Co.'s K. Fonteberry 1, dr 650 ft.

GARZA COUNTY—Union Pet. Corp.'s C. C. Connell 1, fsh 1850 ft.

GRAYSON COUNTY — W. R. Shankle et al's J. Marshall 1, second hole, sd 1100 ft.



Attention Field Managers and Purchasing Departments

Reduce your tubing jobs by using Ewing Patented Hydraulic Standing Valves, made with regular and oversize balls and seats.

Stocked by all Leading Supply Companies and Made ONLY by

Sour Lake Machine & Supply Company
Sour Lake, Texas

It's a Wilson

3 more records have just been smashed by Wilson Speed Elevators! A very interesting sensational story. Special literature now ready. *Send for it TODAY!*

Wilson & Willard Mfg. Co.
MANUFACTURERS

It's a Wilson — *Distributed By* **WILSON OIL TOOLS CORPORATION**

Factory and Distributors Office
2301 E. Vernon Ave.
Los Angeles, California U.S.A.

Boiler Tubes

Charcoal Iron — Lapwelded Steel

"Avoid frequent tube replacements by using our charcoal iron boiler tubes assuring long tube life and low ultimate cost under adverse water conditions."

THE TYLER TUBE & PIPE COMPANY
WASHINGTON, PA.
Texas Stock—Harrisburg Pipe & Pipe Bending Co. of Texas, Houston, Texas.

United States Torpedo Company
Manufacturers of
NITRO GLYCERINE and DYNAMITE
Main Office: Electra, Texas. Phone No. 584

TEXAS STATIONS
Electra.....Phone No. 584
Burkburnett—
E. H. Simons.....Phone No. 14
Ranger—J. A. Rapp.....Phone No. 382
Colorado—C. F. Simpson..Phone No. 269
Breckenridge—
W. H. Blair.....Phone No. 68
Amarillo—
Tex Thornton .....Phone No. 907-W

OKLAHOMA STATIONS
Healdton—H. L. Rapp...Phone No. 191
Duncan—Lee Van Dell....Phone No. 715

All Pioneer Oil Well Shooters

KNOX COUNTY—Brazos Bend Oil Co.'s J. E. Clark 1, sd 2020 ft. Evans et al's Ella Lawson 1, sd 765 ft.

MONTAGUE COUNTY — Gulf Production Co.'s M. E. Benton 1, (rotary) sd 3530 ft. Petroleum Producers Co.'s C. H. Howard, bailing at rate of 60 bbls per day from sand 1395-1430 ft. P. F. Lesh's Mrs. M. H. Salmon 1, running liner, os 935-41. Owenwood Oil Corp.'s Mrs. M. H. Salmon 1, Star machine. The Texas Co.'s I. A. Gist A-3, dr 300 ft; M. H. Salmon 1, co 366 ft. Texhoma Oil & Ref. Co.'s J. W. Maddox 1, rigged up and sd.

STONEWALL COUNTY — Elder Nance's Ward Estate 1, dr 1440 ft.

THROCKMORTON COUNTY — Clark et al's J. L. McCarson 1, fish 1475 ft. Cragin et al's J. R. Burkhalter 1, sd 50 ft. Groves & Burton's Reynolds Cattle Co. 1, sd 672 ft. Hamilton et al's J. T. Odell 1, dr 2760 ft. C. F. Kelsey's W. D. Housley 1, sd 50 ft. King et al's A. P. Broyles 1, sd 900 ft. Bruce Larkin et al's Mrs. T. S. Richards 1, sd 790 ft, estimated 1 million ft gas. McGee et al's J. T. Davis 1, sd water 1310 ft; J. J. Keeter 1, dr 200 ft; Lila D. Martin 1, sd 100 ft. McNeil et al's Travis County School Land 1, rigged up. McKnight et al's A. H. Haley 1, dr 1125 ft. Schimmell et al's H. W. Kelley 1, sd 100 ft. Skinner et al's Mrs. M. A. Mitchell 1, dr 220 ft. The Texas Co.'s A. L. Smythe 1, dr 1025 ft. W. A. Whatley et al's Parrott 1, sd 800 ft.

WILBARGER COUNTY—Allday et al's W. S. Lundy 1, sd 100 ft. American Ref. Co.'s W. T. Waggoner 1, dk. Atlantic Pet. Co.'s Parker 1, sd 300 ft. Barker & Hamilton's A. P. Morris 1, sd 305 ft. Barkley & Meadows' W. H. Stephens 1, dr 1900 ft. Bridwell & Heydrick's W. H. Stephens 3, dr 2220 ft. Bridwell, Heydrick & T. P. Coal Co.'s W. T. Waggoner 1, dr 1210 ft. Burton & Ruff's W. T. Waggoner 1, sd 250 ft. Dill Farm Oil Co.'s W. B. Dill 1, ur cas 2375 ft. Electra Gulf Oil Co.'s M. Ditto 1, dr 1600 ft. B. Harrell et al's W. T. Waggoner 1, rigged up and sd water. Hart et al's Smith 1, sd water, td 2125 ft. Humble Oil & Ref. Co.'s R. L. Castlebury 2 and 3, dks; W. T. Waggoner 1, dr 750 ft. C. F. Kolp's W. T. Waggoner 2, dr 1000 ft. J. B. Levy et al's W. T. Waggoner 1, sd water 800 ft; D. Wheeler 1, sd water 750 ft. Little Oil Co.'s J. T. Youngblood 1, sd water 1250 ft. McCamey et al's G. W. Richardson 1, sd 2060 ft; W. H. Stephens 1, dk. Ed Mulligan et al's W. T. Waggoner 1, sd 1100 ft. Murchison & Pigg's Davis 1, sd orders 1025 ft. Mutual Oil Co.'s C. Zipperle 1, rigged up. Noble Oil Co.'s W. T. Waggoner 1, sd water 2025 ft. Oxford Oil Co.'s W. T. Waggoner 1, dr 1500 ft. Ray & Massey's D. Dond et al 2, dr 2050 ft; Bond et al 4, dr 1600 ft. W. J. Sheldon et al's W. J. Sheldon 1, sd 1810 ft. F. S. Skinner's Fred Streit 1, dr 1120 ft. South Vernon Oil Co.'s W. H. Stephens 4, dr in 2050 ft; Stephens 6, sd water 1100 ft; Stephens 7, sd 1160 ft; Stephens 8, sd 1300 ft; Stephens 9, sd 1050 ft; Stephens 10, dr 1100 ft; Stephens 11, sd 1060 ft. Staley & Wynne's W. H. Stephens 1, rigged up and sd water; W. T. Waggoner 1, dr 1540 ft. Texas Oklahoma Oil & Ref. Co.'s J. Bowers 1, sd water 2050 ft. The Texas Co.'s R. L. Castlebury 1, lease B, dr 640 ft. R. M. Waggoner & Winnipeg Oil Co.'s Bond et al 1, sd orders 2050 ft; Bond et al 2, sd water 750 ft. Wells & Guiberson's W. T. Waggoner 2, ur cas 1900 ft. Winnipeg Oil Co.'s Bond et al 4, rebuilding dk 1920 ft. G. C. Wood et al's A. Streit 1, dk; L. Boger 1, dk. Yoder & Harrison's Mrs. J. T. Williams 1, dk.

Texas Panhandle Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Carson County—		
Danciger Oil & Ref. Co.'s Burnett 1	* 3130	

DRILLING REPORT

CARSON COUNTY — American Ref. Co.'s Burnett 3, sd 2695 ft. J. Crosbie et al's Burnett 1, sd 2700 ft. Culbertson et al's V. B. Armstrong 1, sd water 3245 ft. Gates Oil Co.'s Burnett 1, cementing cas 3010 ft. Gulf Prod. Co.'s Burnett 5, dr 2250 ft; Burnett 6, dr [illegible]

ft; Burnett 7, rigging up; Burnett 1-A, sd 3480 ft. Marland Oil Co.'s Burnett 1, dr 2850 ft. Olson Bros. et al's Burnett 1, sd 2500 ft. Premier Oil Corp.'s Burnett 1, sd 1650 ft. W. W. Silk et al's Burnett 3, second hole, set cas and cemt 2999 ft. Skelly Oil Co.'s Burnett 2, set cas 2790 ft. The Texas Co.'s Burnett 5, dr 1575 ft; Mary C. Burnett 2, sd 2380 ft.

COTTLE COUNTY—T. J. Woodley et al's A. Dulaney 1, sd 2700 ft.

GRAY COUNTY—A. R. Anderson's C. W. Bradford 1, sd 900 ft. C. H. Clark et al's Coombs & Worley 1, fsh 2480 ft. Danciger Oil & Ref. Co.'s J. B. Bowers 1, moving in tools. Frank Dillard's John Henry 1, sd water 3110 ft. W. H. Holmes' J. S. Morse 2, sd 2400 ft. Wilcox Oil & Gas Co.'s J. H. Wilson 1, sd 3520 ft.

HUTCHINSON COUNTY — Amarillo Oil Co.'s L. Bivens 2-B, sd 2650 ft, approximately 70 million ft gas. H. G. Barnum et al's Johnson 1, sd 2860 ft. Dixon Creek Oil Co.'s R. C. Smith 1, sd 2750 ft. Douglass Oil Co.'s J. A. Whittenberg 1, sd 2930 ft. New Domain Oil Co.'s W. S. Christian 1, dk. Prairie Oil & Gas Co.'s Diana Shaw 1, dr 2680 ft. Twin Six Oil Co.'s W. L. Kingland 1, set cas 3000 ft. Western Enterprise Oil & Gas Co.'s Smith-Capers 1, fsh 3050 ft. J. W. Wilson et al's Whittenberg 1, fsh tools 2910 ft.

KING COUNTY—W. G. Trammell et al's Spikes 1, rigged up.

MOORE COUNTY—Amarillo Oil Co.'s Masterson 1, second hole, dr 1510 ft.

POTTER COUNTY—Amarillo Oil Co.'s L. Bivens 3-A, dk; W. H. Bush 1, sd 3490 ft; J. C. Warrick 1, rebuilding rig, td 2200 ft.

ROBERTS COUNTY — Phil Engle et al's Mrs. Ledrick & Sons 1, sd 1730 ft.

WHEELER COUNTY — Mid-Continent Oil Synd.'s Ember 1, sd 500 ft. W. D. Shedden et al's B. F. Westmoreland 1, sd 480 ft. Union Petroleum & Supply Co.'s O. T. Nicholson 1, sd 1500 ft. J. Whittington's Williams & Laycock 2, sd for cas 2120 ft, approximately 15 million ft gas.

Coastal Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Fort Bend—		
Rycade Oil Corp.'s Nash 3.....	*	949

DRILLING REPORT

ANGELINA COUNTY—Ferdinand Heine's Heine 1, Henderson's Ellison sur, 170 ft to W and 150 ft to S line, td 536 ft, sand at 530, preparing to set cas.

BRAZORIA COUNTY—D. F. Bryan Production Co. and Hamm et al's Bryan 1, at Freeport, J. G. McNeel sur, td 3181 ft, preparing to set cas. Z. Gayle's Gayle & Dunsmoor 1, 6 miles S Angleton, W. J. Russel sur, 500 ft to W line, rigging up.

BRAZOS COUNTY—Bryan Pet. Co.'s Watthuber 1, 2 miles S College Station, C. Burnett sur, sd about 2500 ft.

FORT BEND COUNTY—Gulf Prod. Co.'s Moore 3, dr 320 ft. Neilan Oil Co.'s B. Frederick 1, 4½ miles W Rosenberg, sec 19, S. George sur, NW cor, reported sd at 850 ft. Pathfinder Oil Co.'s Davis & Co. 2, Geo. Waters sur, dr 250 ft. Jas. W. Rich et al's Moore-Hager 2, at Big Creek, 300 ft NE No. 1, SE side of dome, preparing to spud in. Rycade Oil Corp.'s Nash 1, 2600 ft E and 200 ft S of NE cor Capt. Nash's 200 acre tract, rigging up; Nash 2, Alsberry sur, 400 ft E and 600 ft S of NW cor Nash's 486 acre tract, 28 degrees NW and 4650 ft NW No. 1, fsh at 2645 ft; Nash 3, 1000 ft W No. 1, abn in salt at 949 ft. The Texas Co.'s Fee 1, at Big Creek, 2100 ft NE of W cor and along NW line, 50 ft SE at right angles from Texas Co.'s N line, dr 3289 ft.

GALVESTON COUNTY—Gulf Prod. Co.'s Geo. E. Smith 2, at High Island, dr 1600 ft.

HARDIN COUNTY—Kirby Pet. Co., Munson & Anderson et al's Hodges 3, near Batson, Hodges 202 acre lease, td 3135 ft, temp sd.

HARRIS COUNTY—Dome Dev. & Pet. Co.'s Schneider 1, Schneider farm, John D. Taylor sur, blk 41, temp abn.

JACKSON COUNTY—Vanderbilt Pet. Co.'s

Why Most Oil Workers Prefer "Trimo" Pipe Wrenches

Made with insert jaw in the handle which saves the wrench.

With nut guards that keep the wrench adjusted in close quarters.

With steel frames which will not break—the element of safety.

With extra long steel handle giving extra leverage and saves effort.

These are the main reasons why skilled mechanics prefer the Trimo Pipe Wrench.

TRIMONT MANUFACTURING CO.
ROXBURY, MASS.
America's Leading Wrench Makers for Nearly 40 Years

TRIMO

PUMPS

Pumps for All Pipe Line and Refinery Services

Catalogs and Bulletins on request

The Goulds Manufacturing Company
SENECA FALLS, N. Y.

GOULDS

OIL FIELD LUMBER
SPECIALIZING IN OIL OPERATORS NEEDS
96 Ft. AND 112 Ft. DERRICKS
STANDARD RIGS
FOR BOTH
ROTARY AND CABLE TOOL
Drilling
STEEL DERRICK FOUNDATIONS
TANK COVERS FOR STEEL AND EARTHEN STORAGE
ENGINE FOUNDATIONS
LARGE TIMBERS IN PINE, FIR AND OAK
Stocks in HOUSTON, GOOSE CREEK, WEST COLUMBIA and at SAWMILLS
Special Quick Service in Texas and Oklahoma

Robertson-MacDonald Lumber Co.
General Offices: 215 Humble Building.

We will furnish on request Specifications, compiled by high grade experienced rig builders, of derricks, standard rigs and oil field woodwork construction in general use in the various producing fields.

STOCKED BY LEADING SUPPLY HOUSES

French Gas-Tite Tubing Anchor

Affords Positive Protection

against loss of tubing by Fire, Wind, or Crystallization.

The tubing is rigidly supported in TWO places inside of the heavy forged steel tubing anchor. Breakage, or melting of tubing above the anchor, still leaves the tubing safely supported.

The TWO POINT SUPPORT distributes vibration over a sufficient length of tubing to eliminate all danger of crystallization.

Detailed drawings and prices on request.

Manufactured by

THE HOUSTON PUMP & SUPPLY CO.

HOUSTON, TEXAS

Manufacturers of Oil Well Pumping Equipment

AJAX

DRILLING ENGINES

Genuine Ajax Engines and parts are obtainable at all branches of the

National Supply Companies

AJAX IRON WORKS — Corry, Penna.

"Famous in every Oil Field"

AJAX ENGINES

Ask Your Supply Dealer *for* Gould Inferno Oil Burners

Use Gould Inferno OIL BURNERS

In every Texas, Louisiana and Arkansas field there is a dealer who carries Gould Inferno Oil Burners in stock, and more dealers are added to the list every week.

Our distribution has not yet reached dealers in some of the other fields, but you can get full information and prices by writing or wiring us at Shreveport.

Gould Inferno Oil Burners are used in every important field in the United States and Mexico.

The principle of operation thoroughly mixes air with the fuel, creating a clear white flame free from soot, and insures a plentiful supply of steam all the time.

Write or Wire for Bulletin No. 2

GOULD BURNER COMPANY

Shreveport, La.

Seliner 1, 4 miles N Vanderbilt, C. W. Hall subdivision of Harwood-Burns ranch, sd at 2720 ft. Jackson County Oil Synd.'s Drushell 2 Drushell lease, producing 50,000 cu. ft. gas.

JEFFERSON COUNTY—Houston Oil Co.'s Sun-Pipkin 1, Pipkin & Davis sur, dr 3486 ft; Staiti 5, S. Eaton sur, 250 ft S Staiti 4, dr 1058 ft. Paggi Bros.' Wilson Hardware Co. 1 Wilson Hdw. Co. tract, lcn.

LIBERTY COUNTY—The Texas Co.'s Fee 2, ½ mile S Fee 1, spd in.

MATAGORDA COUNTY—Marland Oil Co. of Texas' Murphy 1, Jeremiah Dwyer sur, dr 4365 ft. Rycade Oil Corp.'s Gray 1, offset to Sisk 1, 150 ft N of N line of Texas Co.'s 20 acre lease, 150 ft W of E line blk 2, dr 3235 ft; Gray 2, 600 ft N of S line and 1400 ft W of E line of blk 2, dr 1574 ft. Sheppard Mound Oil Co.'s Hawkins 2, offset to Marland's Murphy 1, 300 ft E of Commonwealth Oil Co.'s Hawkins 1, 1000 ft SE No. 3, Hawkins Estate, rigging up.

MILAM COUNTY—Sinclair Oil & Gas Co.'s Smith 1, 12 miles SE Cameron, Smith-Turney structure, 7000 acre blk, 300 ft N and 300 ft W of NW cor R. N. Turney 162 acre lease, land of H. F. Smith Jr., dr 3813 ft.

WHARTON COUNTY — Gulf Prod. Co.'s Cloud 2, 1400 ft E No. 1, dr 550 ft; Felder 3, 20 ft to W and 1735 ft to N line blk 3, S. Ingram sur, dr 1600 ft.

San Antonio District Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Jim Hogg County—		
Plateau O. & Gas Co. Holbein 1....	*	2500
Henne, Winch Farriss Martinez 6..	*	500
O. W. Killiam Texo 1	*	250

DRILLING REPORT

ATASCOSA COUNTY—DeLange-Eiser Co.'s Tom 2, dr 3650 ft. Texacosa Oil & Gas Co.'s Peeler 1, dr 1625 ft. Tripps Drilling Co.'s McAda 1, dr 1030 ft. Green et al's No. 1, spd in and dr (no report but they are drilling).

BEXAR COUNTY—Aviator's Swearingen 1, dk. J. M. Davis et al's Koch 1, no report. F. B. Slick's No. 1, dr. White & Hampton's Swearington 1, sd.

DUVAL COUNTY — Co-Operative Drilling Co.'s Dinn 1, sd 2070 ft. Mesquite Oil Co.'s No. 1, set liner. Hill-Pierce Corp.'s Martinez 1, dr. Cole Pet. Co.'s No. 6, dr below 2400 ft; 7, lcn.

GUADALUPE COUNTY — J. K. Hughes Dev. Co.'s Allen 20, no report. Allen Burman's Wade Battle 1, dr below 2000 ft. Magnolia Oil Co.'s Nos. 13 and 14, dr. Sight et al No. 1, Springs, dr below 1400 ft. Ross & Green's Pryor 1, dr below 1800 ft. Jennings et al's Lynch 1, sd 2250 ft. Walhunda Pet. Co.'s Smith 1, sd 2075 ft Mid-Kansas Oil & Gas Co.'s Edna Krueger 1, lcn.

JIM HOGG COUNTY — Kitselman & St. Albaus' No. 1, blk. 36, sur. 15, dk. Simms Oil Co.'s Wood 1, Sur. 84, dr 2000 ft; oil and gas showing. Henne-Winch-Farriss' Martinez 6, producing 500 barrels; Holbein 1, producing 2500 bbls. Buffam et al's No. 1, blk. 28, Sur. 15, rigging up. Alworth Bros.' No. 1, blk. 38, Sur. 15, dr 500 ft. Big Bend Oil Co.'s Martinez 5, cemented 6⅝-inch cas at 1990 ft; 6, dr 1050 ft. J. W. Pippin et al's No. 1, Sur. 51, dr. Magnolia Oil Co.'s Thompson 1, pulling liner to reset screen. Weber Oil Co.'s Holbein 4, bailing. Lang et al's No. 1, dr below 1500 ft. Shasta Oil Co.'s Holbein 1, sd 2333 ft. O. W. Killam's Texo 1, Sur. 16, blk 255, producing 250 bbls; Martinez 1, dr 1080 ft; Killam 1, dr 1800 ft; Texo 2, dk. Witherspoon Oil Co.'s Holbein 1, setting casing at 2045 ft.

LIVE OAK COUNTY—Grubstake Investment Assn.'s Nichols 3, set casing. Glasco & Fallin's Tip 1, sd 600 ft. Southern Natural Gas Co.'s No. 9, dr; 10, lcn. Coquet et al's Hicks 1, dr.

ZAPATA COUNTY—H. J. McMullen's Nos. 1, 2 and 3 Serapio Vela, lcns. R. K. Bateman et al's No. 1, Sur. 617, dr 1200 ft. Mirando Oil Co.'s No. 16, Sur. 307, sd 2020 ft. Killam Interest's No. 1, Sur. 307, set casing at 1664 ft. Hill et al's Haynes 1, dr. Pamuco Prod. Co.'s Vela 1, dr below 400 ft.

Books for Field Men

Petroleum Production Methods

By John R. Suman. Third Edition, completely revised and brought down to date. Off the press October 15, 1923. Eighty pages of new material added. Among many others the following new features are especially worth noting:

Improved Rotary Drilling Methods — Core Drilling, latest "Dope" brought down to date. Mud-Laden Fluid—Newest features fully discussed. Latest Drilling Devices fully described—The "Make and Break" rotary. Collapsible bits and other new bits. Weight indicators.

Diamond Drilling for Oil—Exploration and Exploitation. What do you know about this newest device being used by Oil Companies all over the world? This system fully described and illustrated. Cost of Power for Drilling Various Methods. Latest Cost Data on drilling in various fields. Temperature of Drill Holes. Swabbing. Evaporation Losses on stored oil and how to stop them. Heat Treatment for Drill Bits. Latest "A. P. I." Tables for correcting gravity readings according to temperature reading. These tables are absolutely new and have not been published elsewhere to date.

Chapter Headings: Drilling Methods—All systems fully described. Method of shutting off water—full description of cementing methods and use of Packers. Operation of Properties and handling of production. Treating Emulsions—a very important subject thoroughly discussed. The use of electric power; this newest kind of power for oil field use thoroughly described in all of its various phases. Pipe Line—construction and operation, friction losses, etc. Tanks—construction of, preparation of gauging tables and prevention of evaporation losses. Tables and useful information condensed. Information on various subjects, which oil men are constantly needing for reference. 650 pages, fully illustrated. Cloth.

Price, postpaid $6.00

Just Off the Press, Petroleum Engineering

By Robert William Phelps and Francis Wilbur Lake, Petroleum Engineers. The essential portion of the petroleum industry, that of bringing the petroleum to the surface, is accomplished by the men in the field, whose work is greatly facilitated by the application of pertinent technical data. It was for the purpose of offering this data in practical form that this book was written. This book presents in clear terms the relation between the basic theories and laws of geology and those of petroleum geology, and their application in the occurrence and extraction of petroleum from its natural reservoirs, through to the economic phase of the industry; together with many tables and alignment charts which are applicable to petroleum engineering.

561 pages, postpaid..... $5.00

Petroleum Production Engineering

By Lester C. Uren, Associate Professor of Petroleum Engineering, University of California.

Condensed outline of contents: I. Petroleum Exploration and prospecting. II. Acquisition of Title to Oil Lands. III. Maps and Sections; Graphic Logs and Peg Models. IV. Developing the field. V. Churn Drilling Methods. VI. Rotary Drilling Methods. VII. Casing Casing Appliances and Casing Methods. VIII. Fishing tools and methods. IX. Oil field Hydrology; Exclusion of Water from Oil and Gas wells. X. Control of high-pressure wells. XI. Finishing the well. XII. Production methods; Removal of oil from wells. XIII. Production methods; Management of wells to secure maximum production. XIV. Power for oil field purposes. XV. Gathering, local storage and shipping of petroleum; gauging, sampling and testing. XVI. Preliminary refining of petroleum; dehydrating and separation of sand and gas. XVII. Storage. XVIII. Transportation. XIX. Auxiliary plants and departments. XX. Office methods and records. 653 pages, 6x9, illustrated.

Price, postpaid $6.00

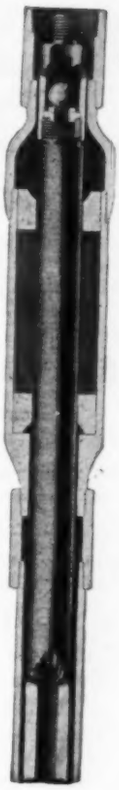
Send Check to

The Gulf Publishing Company

P. O. Box 1307, Houston, Texas

Henry Ford Says:

"If there is a machine that can effect a given saving in any operation you are paying a tax equal to the amount of that saving all the while you delay installing that machine."



The savings effected by

"Tex" plunger Working Barrels

are often enormous. One man estimates that "Tex" Working Barrels will save him nearly $36,000 next year. He recently analyzed his pulling expense and he found that out of 485 rod jobs

75.25% were due to Worn Out Cups.
9.07% were due to Parted Rods.
11.55% were due to Balls and Seats.
4.13% were due to Paraffine.

Regarding the first mentioned item, "worn out cups," it cannot exist where the "Tex" is used because the "Tex" HAS NO CUPS.

There are OTHER advantages that are fully covered in our literature. Write for it. Install a "Tex" in your WORST well and we know you will be thankful to us for the suggestion.

Bradford Motor Works

Bradford, Pa.

Branch Factory and Warehouse:
Tulsa, Okla.

Without obligating us in any way, please send complete information regarding the "Tex" Working Barrel.

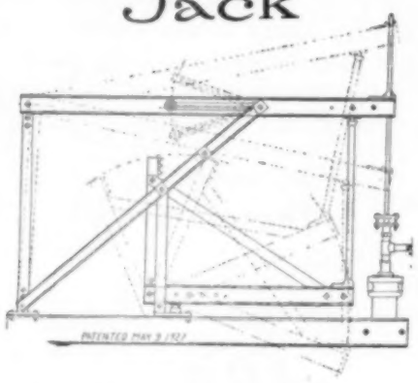
Name .....

Firm .....

Address .....

.....

The Jensen Straight Lift Jack



The Polished Rod *can't* Bend

The Jensen Jack lifts it *Straight up,* and lowers it *straight down*

without any strain or excessive wear on the Rod, or on the Stuffing Box Rings, or on anything else.

The Straight Lift makes a five-foot stroke practical. Made in No. 2 and No. 3 sizes.

Jensen Bros. Mfg. Co.
Nowata, Oklahoma

WATER SUPPLY PUMPS
NOVO TYPE W
Duplex Pumping Outfits
Deliver water long distances.
Carried in stock
Houston
R. B. EVERETT & CO.
Phone Preston 1437 - 7570

2 sizes of H & W ROTARY SLIPS
fit all size pipe from 6" Down

6" body will handle 6" and 5" pipe.
4" body will handle 4", 3", 2½" and 2" pipe.

The extra long bodies on H & W Rotary Slips give a full, firm seat between rotary table bushing and pipe, preventing slipping and crushing. The long bent handles make handling quicker and easier. The removable reliners save time and money. H & W Slips are indispensable to the efficient driller.

Baash Ross Tool Company
5512 Boyle Avenue, Los Angeles, California
Phone Delaware 2141
P. O. Box 694, Houston, Texas
Branches: Brea, Long Beach, Torrance, Rosecrans

Louisiana Wildcats

Company, Well and Location	Initial Production Bbls.	Depth
La Salle Parish—		
Urania Pet. Co.'s Urania Lbr. Co. 4, 20-10-2e	*	157
Webster Parish—		
Haenlen et al's (R. O. Roy & Co.) Roberts 1, 9-23-10	*	274
Olmstead et al's Hudson 1, 17-19-10	*	80

DRILLING REPORT

BIENVILLE PARISH — Roxana Pet. Co.'s Bryan 1, 30-17-6, dr 2085 ft.

BOSSIER PARISH — Arkansas Nat. Gas Co.'s Bolinger 1, 32-23-11, dk. Atlantic Oil Prod. Co.'s Bodcau 2, 24-23-12, sd 2636 ft. Coker et al's Rhodes 1, 31-21-11, dk. Skannal et al's Roscoe 1, 14-17-12, set 6-inch 2392 ft. Wetherbee et al's Holland 1, 9-22-11, rig.

CADDO PARISH—Fortuna Oil Co.'s Mitchell 1, 17-18-16, dk. Haynes Bros.' Louisiana L. S. & P. Co. 1, 8-19-16, dr 500 ft. Richardson Oil Co.'s Bickham 1, 15-18-15, sd 2000 ft; Bostick 1, 11-18-15, set 10-inch 159 ft. Stith et al's Pitts 1, 11-23-16, sd 542 ft.

CALDWELL PARISH—Culver et al's Culver 1, 21-14-4e, sd 3130 ft.

CLAIBORNE PARISH — Claiborne-Lincoln Synd.'s Fields 3, 22-19-5, sd 1725 ft. El Dorado Chief Oil Co.'s McElwee 1, 13-22-7, dr 2400 ft. Evans et al's Taylor 1, 5-19-5, dr 2110 ft.

DE SOTO PARISH—Daniels & Roscoe's Pollack 1, 36-11-24, sd 2948 ft. Tarver et al's Conley 1, 2-14-10, rig. Ulrey et al's Deas 1, 23-11-12, lcn; Patterson-Robinson 1, 22-11-12, dr 750 ft. Wright et al's Sutherland 2, 19-12-14, sd 2614 ft.

GRANT PARISH—Grant Parish Pet. Co.'s Ball 2, 1-7-1w, rig sd.

LA SALLE PARISH—Bur-Ban Oil Co.'s Urania 2, 21-11-2e, sd 2090 ft. Columbia O. & G. Co.'s Urania Lbr. 1, 22-10-2e, sd 200 ft. Gulf Refg. Co.'s Urania 1, 22-11-2e, dk; Urania A-1, 22-11-2e, sd 1022 ft. Stovall Drlg. Co.'s Louisiana-Central Lumber 2, 27-10-2e, sd 2000 ft. Urania Pet. Co.'s Urania 5, 18-10-2e, rig.

LINCOLN PARISH—Buckner et al's Barret 1, 13-20-3w, set 8-inch 1050 ft.

NATCHITOCHES PARISH—R. O. Roy & Co.'s Durr 1, 27-10-10, set 10-inch 208 ft.

OUACHITA PARISH — Dickson & Frue's Goodwin 1, 24-18-2e, sd 2071 ft. J. P. White et al's Jones 1, 6-16-5e, set 10-inch 210 ft.

SABINE PARISH—Emlet et al's Bowman-Hicks Lbr. 4, 8-7-12, dr 165 ft; Bowman-Hicks Lbr. 5, 9-7-12, dk.

UNION PARISH—Jones & Walker's Feazel 1, 6-19-2e, dr 2110 ft. Roxana Pet. Co.'s Boss 1, 18-22-2w, lcn. Simms Oil Co.'s James 1, 10-22-3w, fresh water, 390 ft.

WEBSTER PARISH — Arkansas Nat. Gas Co.'s Frazier 1, 27-23-11, dry 2689 ft; to deepen. Belchic & Laskey's Martin 1, 34-23-10, set 10-inch 460 ft; P. W. Lbr. 6, 33-23-11, dr 2610 ft. Bethany O. & G. Co.'s Wiley 2, 6-22-9, set 6⅝-inch 2582 ft. Butler & McMurray's Weaver 1, 35-23-11, dr 100 ft. Fortuna Oil Co.'s Nickerson 1, 23-23-10, rig; P. W. Lbr. 1, 27-23-10, dk. Kinnedy et al's Ambrose 1, 19-20-10, dk. McDowell et al's Hortman 1, 15-20-10, dr 1430 ft. Louisiana Oil Ref. Corp.'s Armor 1, 21-23-9, dr 1175 ft. Palmer Corp.'s Miller 1, 29-21-10, set 6-inch 3450 ft. The Texas Co.'s Lewis 1, 25-23-10, dk. J. K. Wadley's Porter-Wadley Lumber 1, 31-23-9, dr 2500 ft.

WINN PARISH — Galloway & Arrendale's McCarty 1, 5-12-1w, sd 1600 ft.

Arkansas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Drew County—		
Rhodes et al's Harris 1, 5-13-8	*	2305
Ouachita County—		
Morgan & Gaughan's Morgan 2, 3-15-19	*	1260

DRILLING REPORT

BRADLEY COUNTY—Rhodes et al's McQuistian 1, 36-12-9, rig.

CLARK COUNTY — Southern Drlg. Co.'s Burrows 1, 35-10-20, sd 714 ft.

COLUMBIA COUNTY—Arkansas Fuel Oil Co.'s Hardy 1, 1-19-22, dr 60 ft. Hargis et al's Souter 1, 24-17-22, sd 35 ft. Heath Trust's Williams 1, 1-19-21, sd 2175 ft. Johnson et al's Sailles 1, 18-17-22, sd 915 ft. Kemp et al's Emerson 1, 7-19-19, sd 2260 ft. Ky-Ark Pet. Co.'s Doss 1, 29-19-20, rig. Magnolia Development Co.'s Lindsey 1, 30-18-19, rig. Magnolia Pet. Co.'s Watson 2, 36-15-20, deep test in Stephens Field, dr 2600 ft. Meier et al's Gantt 1, 15-17-22, dk. Moore et al's Fullenwilder 1, 12-17-22, bailed dry 2165 ft, had show of oil at 2233 ft, to take core. Phillips et al's Davis 1, 14-18-21, sd 2720 ft.

DALLAS COUNTY—Durr et al's Riggs-Matlock 1, 33-8-15, sd 2400 ft.

DREW COUNTY—Graves et al's Karnes 1, 20-14-6, sd 2385 ft. King & Wilson's Trotter 1, 12-13-6, sd 1250 ft. Spooner et al's Meyer 1, 4-16-17, sd 50 ft.

GRANT COUNTY—Arnold & Hill's Meeks 1, 8-4-11, dk. Haley & Evans' Pike 1, 8-6-11, sd 50 ft.

HEMPSTEAD COUNTY—Grassy Lake Oil Assn's Gun Club 1, 27-12-27, dr 500 ft. Hempstead Oil Co.'s Nicholls 1, 17-11-25, sd 1980 ft. Wooten et al's Walker 1, 22-11-24, set 10-inch 80 ft.

LA FAYETTE COUNTY — Ken-Saw Pet. Co.'s Red River Valley Lumber 2, 3-20-24, dr 350 ft.

LINCOLN COUNTY—Bennett et al's Jones 1, 33-10-6, dk. Cambrian et al's Fee 1, 3-9-8, sd 1850 ft.

LITTLE RIVER COUNTY—Gaines et al's Thomas 1, 16-13-29, sd 3787 ft. Grote et al's Allen 1, 2-13-29, dr 3050 ft. Johnson et al's Hawkins 1, 10-11-31, to resume dr 1350 ft.

MILLER COUNTY—Norton et al's Thomas 1, 12-20-28, dk.

NEVADA COUNTY—Garrett et al's Snell 1, 10-12-23, dk. Humble Oil & Ref. Co.'s Fincher 1, 6-15-22, dk. Ouachita Valley Oil Co.'s Phillips 1, 30-14-20, set 6⅝-inch 2011 ft. Zingg et al's Groves 1, 22-10-23, dr 1070 ft.

OUACHITA COUNTY — British Allied Synd.'s Larkin 1, 6-13-18, dr 480 ft. Bray & Hawthorne's Copenhagen 1, 13-14-17, sd 2530 ft. Crusader Oil Co.'s Snow 7, 22-13-16, abn 2503 ft. Dee et al's Criner 1, 21-15-19, dk. Reynolds & Thompson's Graves 1, 16-14-18, dr 2075 ft.

UNION COUNTY—Berry et al's Union S. M. 1, 14-19-11, sd 1770 ft. O'Brien et al's Fee C-1, 13-19-17, dr 2210 ft. Liberty Oil Co.'s Davis 1, 31-16-14, dr 1950 ft. Mathews et al's Teele 1, 11-19-12, dr 1675 ft. Natural Gas & Pet. Co.'s Frazier 3, 1-18-16, sdtr 2547 ft.

Oklahoma Wildcats

AFALFA COUNTY—McGuinnis & Ward's Watts 1, C NE SW 21-27-10w, sd 3240 ft. Armstrong, Henley & Piffles' Turnbull 1, C NW SE NW 25-24-11w, dr 2700 ft.

ATOKA COUNTY — McPhearson et al's Wild 1, SWc NW 7-2-9, sd 4323 ft. Henson et al's Dabney 1, C SE NW 17-4-11, sd 2260 ft. J. P. Torrance et al's Fee 1, SWc NE 1-2-9, sd 2235 ft, hfw. Wapanuka Dev. Co.'s Underwood 1, C W L SE SE 28-2-9, sd 1343 ft.

BLAINE COUNTY—Meyers et al's Chronister 1, SEc NW NW 7-18-15w, sd 965 ft. Thompson's Dickerman 1, C SE SE SE 26-15-12w, sd 3213 ft. Okomo Oil Co.'s Ekleman 1, SWc 21-13-10w, sd 2610 ft.

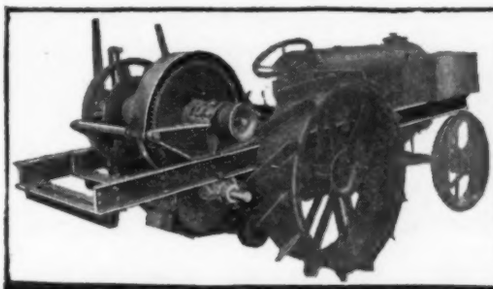
BRYAN COUNTY—Alexander's Hampton 1, SEc NE 26-7-11, sd 1400 ft.

CANADIAN COUNTY — Thos. Revelle's Dawson 1, SEc 34-13-9w, 2905 ft. Carroll et al's Setter 1, SEc 2-13-8w, sd 100 ft.

CLEVELAND COUNTY — Garr Oil Co.'s Holland 1, NEc SE 31-10-4, sd 2620 ft.

CUSTER COUNTY—Hoover Oil Co.'s No. 1, NWc SE 34-13-14w, fsh 2510 ft.

GRANT COUNTY—Embry et al's Edwards 1, C SE SE NW 20-26-4w, sd 1000 ft. Midwest & Gulf's Moon 1, NEc NW 8-27-8w, sd 2490 ft. Phillips Pet. Co.'s Ridings 1, NEc SE NW 29-29-4w, fsh 4667 ft. Frank Traver



At Last a Real Tubing Hoist

The Alamo Fordson Hoist is no experiment—No flimsy contraption built to sell only—No "One Time" outfit. It is a strong, sturdy, simple Hoist attachment that will turn any Fordson into a wonderful speedy Hoist and render real service. They can be found in most Texas Oil Fields, and as production meets the demand they will be found in all Oil fields. Some large producers are using 6 or more—they pull more wells in less time—that's all.

Information and catalog on request.

ALAMO IRON WORKS
SAN ANTONIO, TEXAS

You Can Profit

by taking advantage of the Pipe and Casing listed below. Look this list over —

3,500	feet	4½″	15-lb.	used	casing
6,000	"	6⅝″	24 "	"	"
10,000	"	8¼″	32 "	"	"
6,000	"	10″	40 "	"	"
4,000	"	12½″	50 "	"	"
1,000	"	15½″	70 "	"	"
250	"	20″	90 "	"	"
20,000	"	4″	used	line	pipe
20,000	"	6″	"	"	"
30,000	"	8″	"	"	"

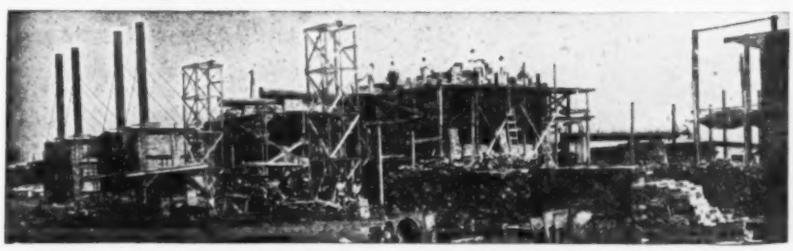
2 Complete Used Rotary Rigs

We own and can make immediate shipment of this pipe from our Texas yards.

Keystone Pipe & Supply Company

Eastern Headquarters: Butler, Penna.
Western Headquarters: Fort Worth, Texas, 315 W. T. Waggoner Bldg.

Branch Stores
Wichita Falls, Holliday, Vernon, Breckenridge, Texas



BUILDING A REFINERY OR NATURAL GASOLINE PLANT?

If you are contemplating building a refinery or natural gasoline plant you should be a subscriber to

The REFINER and NATURAL GASOLINE MANUFACTURER

This journal specializes in that branch of the oil business that its name indicates. The subscription price is $1.00 per year.

Address

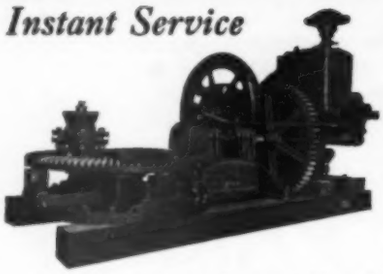
THE REFINER

and NATURAL GASOLINE MANUFACTURER

Box 1307 Houston, Texas

LIGHTNING
OIL FIELD SUPPLIES
PUMPING POWERS, JACKS, STUFFING BOXES, ETC.

Instant Service



More Power—Less Vibration

They Are Correct in Design

Husky Enough to Do the Job Right

The reliable eccentric motion does away with jerky lines.

Built in three sizes:

No. 4—Belt Drive, weight 6500 lbs. For deep wells.

No. 2—12 H. P. engine, weight 4600 lbs.

No. 1—6 or 8 H. P. engine, weight 3200 lbs.

Turntable gear is easily removable and having a broad face, coarse teeth and large diameter will stand up to the heaviest loads.

SHACKLE LINES SET LOW TO THE GROUND (13 in.) ELIMINATE EXCESSIVE STRAIN. QUICKLY INSTALLED

Oil Field Supply Dept.

KANSAS CITY HAY PRESS COMPANY
Kansas City, Mo.

TRADE MARK
KEYSTONE
REGISTERED U. S. PATENT OFFICE

Improved Deep Well Rig

EMBODIES THESE VALUABLE FEATURES

Friction Tool Hoist—Casing Reel—Indestructible Steel Sills—Keystone Patented Spudding Device—V-Friction Brakes, Patented Babbitted Bearings throughout.

This machine is new—modern, complete, the product of an old and established concern. It is backed by 35 years of experience in the manufacture of portable drilling rigs and a world-wide reputation.

We are building three sizes: No. 27, for 2500 feet; No. 32, for 3000 feet; and No. 35, for 3500 feet depth.

Machines can be seen in various parts of the Kansas, Oklahoma and Pennsylvania fields. Let us wire you where to find one.

BULLETIN 302 and prices on request.

KEYSTONE DRILLER CO.
BEAVER FALLS, PA.
Branch Offices and Plant
Joplin, Mo.

The FT. WORTH LABORATORIES

Field Gas Testing. Analysis of oil field brines, gas minerals and oil Sell Thermometers, Hydrometers and Laboratory Glassware

F. B. Porter, B. S., Ch. E., Pres.
R. H. Fash, B. S., Vice-President
828½ Monroe St., Ft. Worth Tex.

BIG FIELD LEASES!

Choice oil and gas leases near drilling wells and locations in Reagan, Crockett and Upton Counties, Texas, along Marathon Fold. Big production area. Prices based on early buying as pioneer in field. All 10-year, 88-form commercial leases, low rentals. Titles good.

Write for maps. C. W. WEBSTER, 1002 W. T. Waggoner Bldg., Fort Worth, Texas. Reference: R. G. Dun & Co.

EARLY DEANE
Drilling Contractor
207 James Bldg. El Dorado, Ark.
Phone 1061 Box 811
WANTS WORK FOR
Two drilling rigs in Smackover, will ship anywhere.

TEXAS OIL MAPS

County and District
Catalog on Application
HEYDRICK MAPPING COMPANY,
Wichita Falls, Texas

et al's Fuss 1, SWc NW NW 3-27-4w, sd 1250 ft.

GREER COUNTY—Neal et al's Johnson 1, SEc NE NW 3-7-22w, dr 1245 ft. Boss & Terrill's Van Victor 1, C SW SW 4-3-22w, sd 2460 ft.

HUGHES COUNTY — Mathers & Skelly's McClain 1, C SW SW 4-5-11, sd 3206 ft. Dixie Oil Co.'s Irvine 1, SW NW SE SE 18-8-10, set 5-inch, td 3040 ft. Walton, Snyder & Marshall's Kiles 1, C E L NE NW 8-6-10, dr 715 ft.

JEFFERSON COUNTY—Connell Oil Co.'s Anderson 1, SEc NE 31-4-8w, sd 2000 ft. Landis et al's Standfield 1, SEc 33-7-6w, sd 1000 ft. Barker et al's Major 1, C SE SW 34-5-6w, spd and sd. Godley Oil Co.'s Woodworth 1, C NE NW 36-5-4w, sd 495 ft. W. E. Norton's Unknown 1, SEc SE 7-5-9w, rig. Cherry & Coush's Seay 1, NEc NW NW 4-7-5w, sd 1390 ft.

KAY COUNTY—Day Oil Co.'s Vandatta 1, SWc NW 8-26-2w, r 3660 ft. Hickman & Barnhart's Sheets 1, C NW SW SE 25-29-2w, sd 805 ft.

KIOWA COUNTY—Connor et al's No. 2, NEc NW NW 34-7-16w, run 10-inch, td 970 ft. Aubynne Oil Co.'s No. 1, SWc NE 3-7-17w, sd 2670 ft. Alcorn Oil Co.'s No. 1, NEc SE SE SW 13-7-16w, sd 1500 ft.

LINCOLN COUNTY—P. & R. Corp.'s Hainzig 1, SWc NW SW 14-13-6, dr 2135 ft. Douglas Oil Co.'s Ewing 1, NWc 7-13-3, sd 2965 ft. J. C. Cook's Richardson 1, SWc NW SW 8-12-5, sd 2375 ft. Eugene Coste & Co.'s Ross-Fortune 1, SEc NW 26-12-2, sd 2915 ft. Wilcox O. & G. Co.'s Smith 1, SEc SW NE 12-12-3, sd 2342 ft.

LOGAN COUNTY—Skelly Oil Co.'s Newman 1, NWc NW 32-19-3w, co 2318 ft. Oklahoma Drilling Co.'s Honson 1, SEc SW 36-15-2w, sd 1716 ft. Franklin Oil Assn.'s Moore 1, NWc SE SE 35-17-4w, dr 2130 ft. McMunn & Nixon's Fields 1, SWc NE SE 35-17-4w, rig. Haley & Pioneer Pet. Co.'s Quair 1, Swc SE 33-18-3w, rig rebuilt. Blackford O. & G. Co.'s Lair 1, C S L N½ SE 28-16-1w, fsh 750 ft. Gilliland Oil Co.'s Ohm 1, C NW 5-19-2w, fsh 3050 ft. Magnolia Pet. Co.'s Pritchard 1, NWc 23-15-1s, dr 2840 ft.

LOVE COUNTY — Driller Syndicate Oil Co.'s Wilson 1, NWc SE 11-7-2w, sd 2830 ft. Simms Oil Co.'s Starritt 1, SEc NE SE NE 26-6-3w, change to rotary 2332 ft.

MAJOR COUNTY — Texas Prod. Oil Co.'s Basin 1, SWc 6-22-14w, spd and sd. Bradstreet Oil Co.'s Ratcliffe 1, C SW 9-22-9w, dr 3290 ft. Frantz & Slick's Gray 1, C NW 36-21-11w, sd 1000 ft.

PONTOTOC COUNTY — Harper et al's Dener 1, NWc SE SE 19-6-7. fsh 3000 ft. Smith et al's Norris 1, SWc SE 34-4-6, sd 2430 ft. Riverside Oil Co.'s McFarland 1, NWc NE NW 4-5-5, sd 650 ft. C. J. Wrightsman's Floyd 1, SWc NW NE 24-4-4, cas trouble 2720 ft. Galloway et al's Hays 1, NEc SE NW SW 13-3-6, sd 1160 ft. Craig et al's Starritt 1, NWc NE 5-4-5, sd 600 ft. Brinson et al's Brown 1, SEc SW SE 32-5-5, dr 725 ft.

OKLAHOMA COUNTY—Firestone Oil Co.'s School 1, NWc SE 36-11-3, sd 4479 ft.

POTTAWATOMIE COUNTY — Ossie Oil Co.'s Howell 1, SWc NE 17-10-2, dr 3225 ft. Davis Detrick's McGathey 1, SEc 10-6-2, sd 3850 ft. H. C. Guinnup et al's Floyd 1, SWc SE 12-11-3, sd 3670 ft. North American Oil Co.'s Madgett 1, NWc 25-10-4, sd 460 ft. Maud Oil Products Co.'s Yinson 1, NEc SW 18-7-4, sd 2935 ft. McMann Oil Co.'s Neghan 1, SWc NW 19-7-4, sd 100 ft. Day Oil Co.'s Bell 1, SEc NW NE 9-5-3, sd 4021 ft. Halmond Osmond et al's Fiddler 1, SEc NW 4-5-5, sd 545 ft.

ROGERS MILLS COUNTY — Twin Hills Oil Co.'s McClure 1, NWc 15-16-26w, sd 4310 ft. Trio Oil Co.'s No. 1, SEc NW SW 3-13-26w, sd 3060 ft.

SEMINOLE COUNTY — Maxwell et al's Charty 1, C NE NW 33-6-6, dr 2275 ft. Link Oil Co.'s Caroline 1, C SE NW 14-6-7, sd 2840 ft. T. B. Slick's Sanny 1, 18-6-7, dr 3910 ft. Wm. McDougall's Dindy 1, C SW SW 30-6-7, co 3350 ft. R. F. Garlands Farlin 1, C NE NW 6-6-18w, sd 1390 ft.

WASHITA COUNTY—McCoy et al's Praeters 1, C SW SW NE 9-8-15w, sd 3115 ft.

WOODS COUNTY—Victor Oil Co.'s Van Buskirk 1, SWc SE 10-25-15w, sd 960 ft.

RECOGNIZED PETROLEUM GEOLOGISTS

HEATH M. ROBINSON
GEOLOGIST
304 American Exchange Nat. Bank Bldg.
DALLAS, TEXAS
Telephone: X-2738

ALEXANDER DEUSSEN
CONSULTING GEOLOGIST
Reports—Appraisals—Management
Texas and Louisiana Oil Properties
1105-6 State Nat'l Bank Bldg., Houston, Tex.

EDWIN B. HOPKINS
CONSULTING GEOLOGIST
25 Broadway
NEW YORK

DEWITT T. RING
Petroleum Geologist
El Dorado, Ark.
905 Electric Bldg. Buffalo, N. Y.

DAVID DONOGHUE
Geologist and Engineer
Appraisals and Geological Reports
West Building, Houston, Texas

William H. Foster W. A. Reiter
FOSTER & REITER
CONSULTING GEOLOGISTS
19th Floor, Magnolia Bldg., Dallas
Atlas Life Bldg., Tulsa

F. C. LANCTON
Public Accountant, Specializing in Oil Accounting and Systems. Income Tax
400 Republic Bank Building
DALLAS, TEXAS, P. O. Box 324

VINSON, ELKINS & WOOD
ATTORNEYS
Gulf Building, Houston, Texas
Special Attention to Oil Leases and Litigation

Kansas Wildcats

DRILLING REPORT

BARBER COUNTY—R. D. Brown's No. 1, NWc SW NE 33-30-14w, sd 3741 ft.

BARTON COUNTY — Cheyenne Oil Co.'s Sooy 1, SWc SW 27-18-12w, sd 3525 ft. Haynes et al's No. 1, NWc 21-12-12w, sd 2100 ft. Mountain States Oil Co.'s No. 1, SEc NE 22-18-13w, set cas 3685 ft. Huffine et al's Smith 1, C NE SW 21-19-12w, sd 675 ft.

CLARK COUNTY—Watcham O. & G. Co.'s Morrison 1, SEc NE NE 2-22-1w, sd 4918 ft.

COFFEY COUNTY — Sunbeam Pet. Co.'s Andrew 1, NWc NE 30-20-15, rig. Manhattan Oil Co.'s Elliott 1, NWc SW 14-33-13, sd 350 ft. Braden Bros.' Beyer 1, SEc NW 13-22-13, spd and sd.

CLOUD COUNTY—Livingston et al's Murdock 1, NEc 7-6-4w, sd 365 ft.

FINNEY COUNTY—Garden City O. & G. Co.'s Wann 1, SEc SE 36-21-20, sd 2890 ft.

GEARY COUNTY—Liberty-Texas Oil Co.'s Wright 1, NEc 9-12-6, sd 750 ft; Foster 1, NEc SW 3-12-6, sd 2000 ft.

GOVE COUNTY—Keyes Bros. & Marine's Unknown 1, NWc SW 23-13-26w, lcn.

GRAHAM COUNTY—Keyes Bros. & Marine's Taxton 1, SEc NW 23-8-24w, sd 1850 ft.

JEFFERSON COUNTY—Northern Counties' Edwards 1, SEc NW NW 13-8-9, sd 3405 ft.

KINGMAN COUNTY—Hale et al's Graber 1, SWc NW 34-27-7, sd 2543 ft.

LABETTE COUNTY—Ark Fuel Oil Co.'s Sparks 1, NEc SE SE 14-31-17, sd 1100 ft.

LINCOLN COUNTY—Berry & Rosenthal's Lambert 1, C NW 31-12-10w, sd 3250 ft. Amerada Pet. Corp.'s Crawford 1, NEc SW SE 16-11-7w, sd 2875 ft. Equity Oil Co.'s Jellison 1, NWc SE 19-13-9w, sd 2790 ft. Scott & Collins' Stone 1, SEc SW NE 19-11-6w, sd 500 ft.

NEMAHA COUNTY — Nemaha O. & G. Co.'s Meyers 1, NWc 19-3-11, sd 3250 ft.

OSAGE COUNTY — Rodgers & Bittle's Bertha 1, SEc NW 22-17-16, lcn. Mul-Vit Dev. Co.'s Neil 1, NEc NW SW NE 8-17-17, sd 2734 ft. Baker et al's No. 1, C SE SE 3-10-14, sd 260 ft.

POTTAWATOMIE COUNTY—Crawford et al's Stewart 1, C E L SE SE SE 17-19-12, rig; Greishabert 1, SWc SE SE SW 13-9-18, rig; St. Mary 1, SWc 11-1-12, sd 2290 ft.

RICE COUNTY—Stamey's Barnes 1, SEc NE 21-20-6w, sd 3075 ft. Jasper & Beschka's Walker 1, SWc NE 10-18-6w, sd 2200 ft.

RILEY COUNTY—Pawnee O. & G. Co.'s Marks 1, SEc NE NW 26-10-6, sd 1700 ft.

ROOKS COUNTY—Keyes Pet. Co.'s Sandon 1, NW SW SE 7-8-20w, spd and sd.

RUSSELL COUNTY — Pomeroy et al's Cooper 1, SEc 33-12-11w, sd 2562 ft. Alcorn Oil Co.'s Seller 1, SEc 36-15-12w, dr 3340 ft.

SALINE COUNTY—Thrall et al's No. 1, SEc NE NW 15-15-4w, sd 1010 ft.

SEWARD COUNTY — C. T. Dev. Co.'s Woods 1, NWc NE 34-34-34, sd 700 ft. Seward O. & G. Co.'s Selsey 1, NEc NW 2-33-3, sd 2427 ft.

TREGO COUNTY—Keyes Pet. Co.'s Walsh 1, NWc SE 5-11-25w, sd 1450 ft; Walsh 2, SWc NE SW 5-11-25w, sd 1550 ft; Davis 1, NEc SW 16-11-24w, sd 3030 ft.

WABAUNSEE COUNTY—Williams et al's No. 1, NEc SW 9-5-5, sd 3600 ft.

WILSON COUNTY — Rhodes & French's Brown 1, NWc SW NW 2-27-14, sd 800 ft.

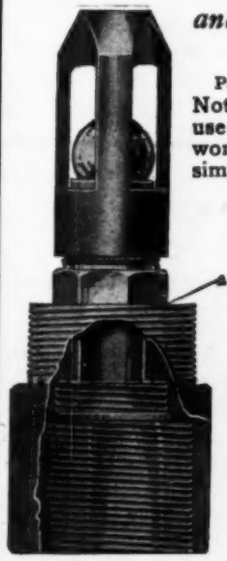
PIPE FOR SALE
Good used line pipe and casing with threads and couplings: 25 miles 2" pipe, 30 miles 3" pipe, 15 miles 6" pipe, 10 miles 8" pipe, 20 miles 10" pipe 4 miles 5⅝" casing, 3 miles 6¼" casing.
MAX ZEIGLER & BROTHER
Muncie, Indiana

PATENTS
Patents Obtained and Trade Marks and Copyrights Registered
428-29-30 Bankers Mortgage Bldg.
HARDWAY & CATHEY
Phone Preston 4790 Houston, Texas

Maurice Hirsch & Allen Hannay
ATTORNEYS AT LAW
601-2-3 Goggan Bldg.
HOUSTON, TEXAS
Specializing in Oil Law and Land Law

PATENTS
Patents Obtained, Trade Marks, Patent Causes
JESSE R. STONE
Formerly Assistant Examiner United States Patent Office
Andrews, Streetman, Logue and Mobley
12th Floor Union N. Bk., Houston, Texas

PATENTS OBTAINED FOR INVENTORS
JACK A. SCHLEY
U.S. PATENT ATTORNEY
305 INTERURBAN BLDG., DALLAS

Adams Combination Cuff and Standing Valve
Patent No. 1353303

Not necessary to use special cuff on working barrel — simply take a top cuff off of any old barrel and substitute for bottom cuff, then screw hydraulic valve in place.
Made of bronze with steel crown ball and seat.
Has a salvage value.
Sizes 1¾, 2¼, 2¾, 3¾ inches
Manufactured only by
Southern Brass Mfg. Co.
HOUSTON, U. S. A.

NORTH TEXAS
Shallow field leases, including offsets, at low prices. Offsets to producing leases in Archer County have sold as high as $900 cash per acre. Chance for excellent profits. Write for maps and prices. P. R. MacIntosh, 215 Neil P. Anderson Bldg., Fort Worth, Texas.

ENGINEERS & CONTRACTORS
IN NATURAL GAS AND OIL

65 Miles of 12-Inch Pipe and Never a Leak in 18 Months!

Extract from a letter—dated June 13, 1924—from the president of a natural gas company in the South:

"We put this pipe line in operation and turned in gas on November 29, 1922. From that time to the present day, we have had no interruption whatever in the operation of this 12-inch pipe line. And during said operation, which has been continuous from the day gas was first turned in to the present time, we have not been able to find a single leak from any cause. In fact, it is the best 12-inch pipe line I have seen during my long experience in handling gas under high pressure. Our line walkers are disgusted at not being able to find a single leak."

This is a Hope-built pipe line of course

HOPE SERVICE

Engineering counsel, design, construction and contracting—in pipe lines for oil and gas, oil pumping stations, gas compressing and boosting plants gasoline recovery systems, city and inter-city gas mains.

UNIT RESPONSIBILITY

H-1A

ENGINEERS CONTRACTORS
HOPE Engineering & Supply COMPANY
DESIGNERS MANUFACTURERS
MT. VERNON, OHIO, U. S. A.

big runs

are the rule on the oil properties where STEELEX and BRONZEX Balls and Seats are standard equipment — each designed to fill a definite need.

Each ball and seat is ground individually and in sets through all operations, and the result is a ball and seat that works with unusual precision.

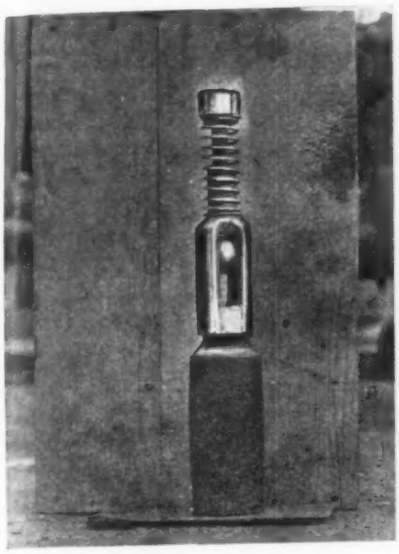
Use STEELEX in locations where excessive sand is found — BRONZEX where alkali or lodestone cause trouble.

Thus you too, can acquire the "big run" habit.

The
CHARLES N. HOUGH
Manufacturing Co.
Franklin, Penna.

Products that cut down your underground overhead

NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS



Showing ball raised from the seat

Device to Drain Tubing During Pulling Process

The Sour Lake Machine and Supply Company of Sour Lake, Texas, is ready to offer the oil industry a device, designed to prevent the waste of oil, common to the operation of pulling tubing. It will permit oil standing in the tubing to drain back into the well bore, leaving the tubing empty as each joint is raised above the derrick floor.

To permit the fluid to drain back into the hole, the device is so arranged that the ball of the standing valve can be picked up and held off its seat, during the pulling of tubing. Part of the device sets over the ball of the standing valve, three prongs being ready to take hold of the ball. When it is to be raised, the traveling valve is lowered until the upper part of the device drops into a groove to press the prongs down over the ball.

A quarter turn allows the ball to be picked up and held.

The joining of these two parts of the device also can be used to make the column of sucker rods rigid, allowing parted rods to be screwed back together in the hole.

The device is the invention of James C. Dickens of Goose Creek.

Holt Offers "Caterpillar" For Oil Field Service

Designed to meet the exacting demands in the medium power field, The Holt Manufacturing Company, with factories at Peoria, Illinois, and Stockton, California, is putting out a new 5-ton "Caterpillar" Tractor.

This late model is said to embody many distinct features, tending toward greater accessibility, dependability, and economy. Unit construction is the feature of the outfit; three units, the engine, transmission and track units, forming the complete tractor.

The motor is a four-cylinder, valve-in-head type; bore 3¼ inches; stroke 6 inches; 1000 R. P. M.; gear driven fan and water pump; full force feed lubrication. Special attention has been given to compactness and complete accessibility. Large side plates provide for bearing inspection and adjustment.

Selective gear type transmission is used, with three speeds forward and one reverse. Forward speeds are: first, 1.75; second, 3.00; third, 4.25 M. P. H.; reverse, 2.00. In each speed, power is applied to the sprocket with but three gear contacts. All shafts are mounted on heavy duty ball and roller bearings. Steering clutches provide independent, yet positive drive to each track; no differential is employed.

Through a 3-point spring mounted suspension, the entire weight of the tractor is carried on the roller frame. The truck frame incorporates marked simplicity in design, yet permits operation of each side to accomodate itself to the inequality of ground surface.

A unique feature is the drive link and spring construction which permits the centers of the drive sprocket and track idler to approach each other so that the drive sprocket can slip over the space blocks, should an obstruction gain access to the track unit. The track shoes and rails are cast integral of high carbon steel, specially heat treated. Track shoes are 12 inches wide.

While nominally rated at 25 drawbar horsepower, the tractor has a substantial reserve for all conditions. Oil field operators will find incorporated in the new tractor, many features specially adapted to the difficult conditions of development operations.

Further information will be supplied by The Holt Manufacturing Company, Peoria, Illinois, or Stockton, California.

Special Bomb Is Used Successfully In Wyoming

Successful use of the Zero Hour Electric Bomb, for shooting wells in Wyoming fields, has given the bomb a favorable boost among operators in Wyoming. The bomb has been on the market for three months and during that time has proved itself efficient.

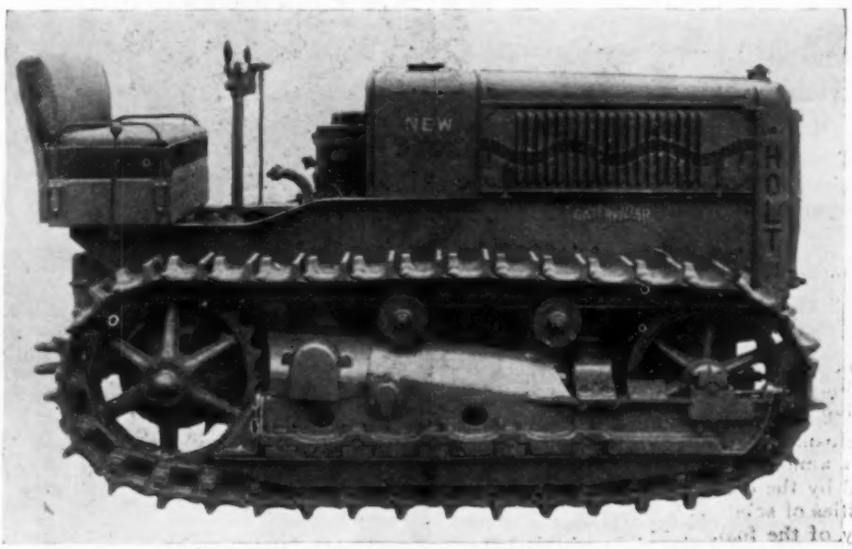
A timing mechanism, a battery, and an explosive charge comprise the bomb, which is enclosed in a watertight and loadstone-proof shell.

Dependability and safety are features highly emphasized by manufacturers of the apparatus. A powerful batter, platinum switch, sturdy watch, extra caps, and a large explosive tube all insure dependability.

Winding and setting are done before caps or explosive are brought near. Then the case is closed so that every part is protected from accidental contact, the ends of the connecting wires alone being exposed for attaching the caps. This assures safety.

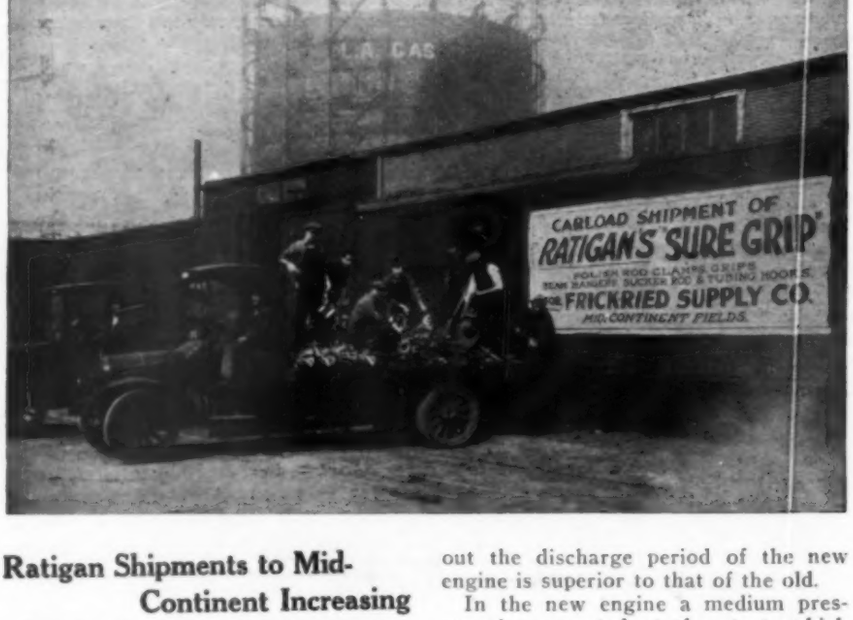
The bomb is particularly recommended for use in "cavy" formations where it is desired to raise the casing or swab the well after placing the shot, but before it explodes. The outfit has also been found successful in detonating "squib" shots for clean-out work, in shooting the casing, fishing, and various other special shooting jobs.

Booklets and other descriptive literature will be sent upon request, by the Zero Hour Torpedo Company, P. O. Box 2100, Casper, Wyoming.



Holt 5-Ton "Caterpillar" for oil fields

Manufacturer and Supply Dealer Notes



Ratigan Shipments to Mid-Continent Increasing

Los Angeles, California, January 7.—That Ratigan Sure-Grip tools for oil field use are finding a market throughout the Mid-Continent, is indicated by the accompanying picture which shows a car load shipment for Frick-Reid Supply Company.

Ratigan officials can remember the time when Eastern orders were small, few, and far between. But now each succeeding month brings increased business from fields east of the Rockies. Carload shipments are ordinary events.

The J. P. Ratigan Company manufactures over a dozen oil well specialties. Among them are beam hangers, polish rod clamps, polish rod grips, sand bailers, tubing clamps, adjustable sucker rod elevators, rod catchers, bell nipples, safety sucker rod and tubing hooks.

Portable Foam Engine For Putting Out Oil Fires

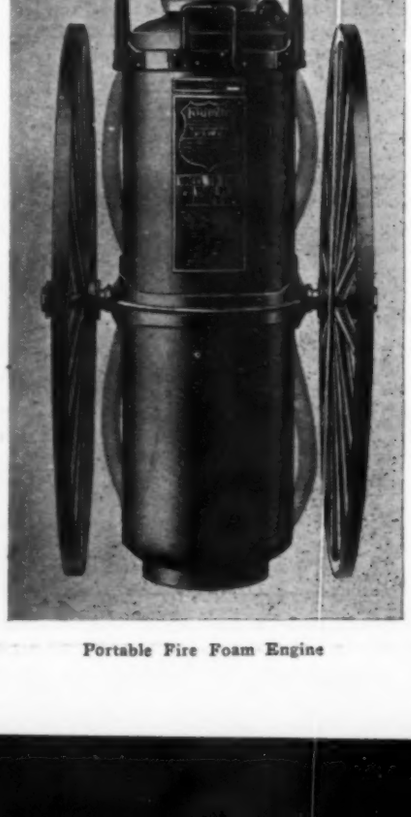
Careful reasearch in fire fighting equipment has led the Foamite-Childs Corporation, Utica, New York, to announce an improved model in their foam chemical engine.

The change in design, as compared with the forty-gallon foam engine in use for the past few years, is an important one. While the new engine has substantially the same external appearance as the old, the internal construction has been entirely re-designed, resulting in a number of advantages:

Firefoam generated by the new engine is almost double the quantity delivered by the old type, from the same quantities of solutions. In addition, the quality of the foam produced throughout the discharge period of the new engine is superior to that of the old.

In the new engine a medium pressure is generated at the start, which gradually decreases during the entire period of effective discharge. This medium pressure is sufficient to provide an effective range during the entire discharge period.

The fact that the foam does not break down in the machine, gives the new engine an increased period of effective discharge. This period is also made more effective since the foam is discharged in a steady stream, rather than a great gush at the beginning of the discharge, followed by a rapid fall in pressure, typical of the old type engine.



Portable Fire Foam Engine

As in the old type engine, the foam generating solutions are stored in two separate tanks within the new engine shell. A system of baffles, orifices and pressure-equalizing tubes has been arranged to measure the flow of the two solutions to the mixing chamber at the head of the engine shell, where they combine to form Firefoam. This foam is forced through the hose immediately as it is generated, in a swift stream of fire-smothering gas-filled bubbles.

The engine is classified as a forty-gallon, portable foam chemical engine, and carries the label of the Underwriters' Laboratories.

More detailed information will be furnished by the Foamite-Childs Corporation, Utica, New York.

Canadian Gas Well Reported Showing Oil

Calgary, Alta., Jan. 4.—With most of the drilling operations in the Canadian West at a complete standstill owing to severe winter weather, the Okotoks field, a few miles southwest of Calgary, for the time being occupies the center of the stage.

Rumors are current that the Royalite Oil Company No. 4 gasser, section 7-20-2w5, has come in as an oil producer. These are not officially confirmed, but it is understood that the big gasser, which has an estimated open flow of 17,000,000 cubic feet a day, has developed an incidental production daily of around two hundred barrels of high gravity casing-head gasoline.

The big gasser was brought in last October, as the result of a deep test for oil in the lower horizons of the Okotoks field. Blowing open under high pressure it defied all efforts at control, and eventually caught fire, blazing for several weeks before it was extinguished. It is now under partial control. The Royalite Oil Company is a subsidiary of Imperial Oil, Ltd., and this is the first approach to commercial oil production the big company has secured in its costly exploration campaign in the Canadian West. It is probable that another deep test of the Okotoks field will be started, as it seems impracticable to carry the No. 4 test any deeper under present conditions.

In the Irma-Wainwright field, east central Alberta, the Western Consolidated Oil Company, section 20-45-6w4, is reported still drilling. All the other plants in this field are shut down, heavy snow fall having blocked the roads while the severe cold has tied up the water supply.

British Petroleum No. 2, section 30-46-6w4, after being cleaned out some time ago came back as a producer of heavy crude, flowing by heads. It is claimed that, when tubed, it may make 200 barrels a day.

Frick-Reid Supply Co.

PRESENTS

THEIR QUALITY EQUIPMENT

AXELSON MACHINE COMPANY — Upset Double Pin Steel Sucker Rods, Reinforced Steel Pull Rods, Axelson and Amco Plunger Liner Working Barrels, Noxon Stuffing Boxes.

**BEAUMONT IRON WORKS COMPANY — Dreadnaught Rotaries, Pumps, Draw Works, Kellys, Swivels, Fish Tail Bits, Tool Joints, Casing Heads, Steel Fittings, etc.*

CARBIC MANUFACTURING COMPANY — Oxyacetylene Welding and Cutting Apparatus.

DONOVAN BOILER WORKS—Oil Country Boilers, Locomotive and Code Type, 40 to 80 Horse Power. Gas Traps; 100 Barrel Welded Steel Tanks.

FRICK-REID — 1-KW Turbine Generator and Accessories

FRICK-REID — Service Rubber Belting, stitched and friction surface.

JOHNS-MANVILLE COMPANY — Packing to meet every need.

JONES & LAUGHLIN STEEL CORPORATION — Oil Well Casing, Tubing and Line Pipe.

NATIONAL TRANSIT PUMP & MACHINE COMPANY — Power and Steam Pumps, Klein Tongs, Refinery and Pipe Line Equipment.

JOSEPH REID GAS ENGINE COMPANY — Gas and Oil Engines for Pumping and Drilling, All Sizes Band Wheel and Geared Pumping Powers. Refinery Receiving Boxes and Manifolds.

J. P. RATIGAN — Beam Hangers and Sure Grips.

JOHN A. ROEBLINGS' SONS COMPANY—Wire Drilling Lines, Sand Lines, Blue Center Casing Lines, Gas and Electric Welding Wire.

ROSSENDALE-REDDAWAY BELTING & HOSE COMPANY — "Camel Hair" Belting for all Conditions.

STANDARD SEAMLESS TUBE COMPANY — High Carbon Seamless Casing, Drill Pipe and Tubing.

STRUTHERS-WELLS COMPANY — Steam Drilling and Pumping Engines.

WHITLOCK CORDAGE COMPANY — Manilla Cables and Bull Ropes.

*Dreadnaught Rotary

The Dreadnaught Rotary is simple, low, and powerful. It is made of electric manganese steel and built to withstand punishment and abuse. The bearings are long and heavy. The teeth are properly designed and show no wear after long service. It comes in three sizes—27", 21" and 15". It is most extensively used in Oklahoma and Texas, where men hold the world's record for handling drill stem. Carried in stock, along with other Dreadnaught equipment, by the Frick-Reid Stores in all rotary fields.

Distributed by

FRICK-REID SUPPLY COMPANY

West of the Mississippi — Stores Everywhere In Eastern Fields — Frick & Lindsay Co.

LETTERS OF Paul Peebles P.S.G.

mi deer cleopatry

well cleo hunny I gess yu seen in the pappers where it was a quiet happy new yeres in huston & not mutch dammedge done escept the prohi agents was tryin 2 watch the sellerbrashuns but that it was not enuff agents in the u. s. mutch less than in huston 2 watch all of them. & it was admitted by all that huston aint hardly parchin dry yet. well I am tellin yu that hunny so that yu will hav a good ideer why I cood not cum down 2 sea yu on new yere's day.

well hunny I was plannin for the old yere 2 go out & the new one 2 cum in without no help or encouragements from me, but yu no how it is with a poplar guy like I am. well mi frens would not let me be quiet at hoam or let me alone atall till after I gotten paralized & then I did not kare enny moar than they did.

well I cant giv yu all of the detales of the evenin because it was 2 menny & besides I do not want 2 tell yu no names or nuthin of none of the peepul whitch was with me. not that I care for yu knowin hunny, but this is a pretty big town & I do not no the names of all the peeple in it, escept I gess I musta met about half the bootleggers that nite

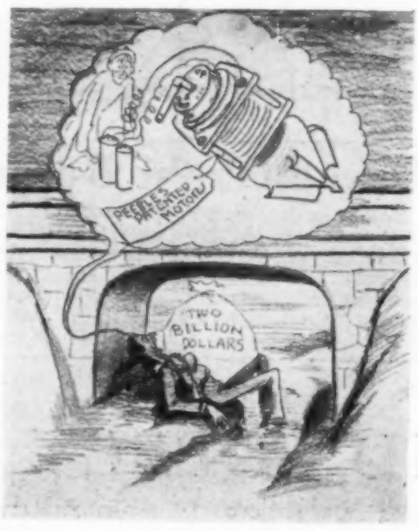
hunny the first part of the evenin was funny & then it gotten kinder seerus & then I did not care & then I did not no nuthin about it. I did not fall off of no watter wagen but the car I was ridin in wunst run in2 1 of the combernashun street sprinklers & sweepers whitch aint got no business 2 be out on new yeres. so after that we desided that we had better get out where it was moar room. but hunny this town aint bilt for runnin automobiles in when it is six or ate peeple in the car & the 1 whitch is drivin thinks sumboddy elst is. what I meen is that out where the peeple whitch thinks they are swells lives it is libul 2 be most ennything in the middle of the street, like bushes & things like that. but what I am telling yu about is that we was runnin along pretty fast and I do not think I was drivin, when all of a sudden it was a house rite in the middle of the street. well we pretty nere run rite into it but terned just in time & run in2 a fense. whilst we was tryin 2 back out from that the car run back in2 the house, but I do not think it hert ennything. well that left us in a pretty pickle with the feller in the house wonderin what was happenin 2 him. so I says all yu guys get out & less shove this house out of the street, & rammed the car back agenst it agin, but it wood not move. then we seen that it was anuther way 2 go & went.

well hunny I do not gess that ennybody put me 2 bed & I do not remember goin 2 sleep. but I must hav bin 2 sleep because I had a dreem. & hunny that dreem has put me in a line for makin mi forshune.

I will tell yu all about it.

I dreemed that mi 12-mile tunnel was down about ten miles with two miles to go & had alreddy run in2 gravity, whitch prooves a theery that I hav about gravity, & the dreem also giv me a new theery on what are we goin 2 do for power when the oil gives out. I dreemed that I had me a exclusive patent on the peebles patent gravity motor & had a contrack with henry ford 2 make them for his fords. I also had a contrack with the tax collector 2 colleck the royalty on mi little hunks of gravity whitch I had the exclusive control of on account of havin the onliest gravity mine in capitivity, whitch made me the ritchest man in the world.

the motor whitch I had made wood develop 20 horse power & 60 miles the per hour with a little peece of gravity about as big as the rubber on a led pensil. it was so simple that if I did not hav the patent on it & a monoplize on the energizer whitch is what I call the gravity whitch yu use for fuel in it



it wood a bin a hard matter for me 2 make ennything out of it. all it was 2 the motor was a contrapshun 2 move the little gravity capsule forwards & back. when yu pushed it further the faster she goes, & pushin it packwards makes it in the reevers, & bi stopin it on senter she just stops.

I was not sellin the gravity but puttin it out on a royalty basis of $100 per car per year, fob, & the tax collectors was makin there rake of stickin them what had bigger cars than fords for moar in proporshun. hunny it is 20 milyun automobiles whitch made me a little annyul income of only 2 bilyun milyun dollars whitch is moar munny than there is. & I was doin all the minin miself so that it was not no expentses except hirin sumboddy 2 run the cash registers when the munny come in.

well about the time I was dreemin about that munny & thinkin it was 2 good 2 be trew, I commensed 2 dreemin that I was down in mi shaft diggin gravity 2 beet the band & gittin ritch just as fast as I cood. I cood sea how the shaft was all conkreeted over nise & smooth inside but I was worried because it seemed like it was a hole lot of water commin in & made the gravity all sticky.

well when I woken up hunny I was under a culvert & was diggin in sum of the gooiestes mud yu ever seen & mi feet was gittin off in2 the watter whitch made them cold. I do not no how cum I was there or nuthin about it nor neether do I care. because last new yeres before I woken up in the jale & it was trubble gittin home & this time it was not none.

& ennyway hunny I am glad it all happened & yu must not be mad with me about it. because hunny if it hada not happen like it did I wood not a dreemed mi newest theery whitch settles the ? of what are we goin 2 do for power when all the oil is gone. yu need not laff at this like sum I hav told about it. because yu remember that I hav dreemed theeries befoar whitch it aint never nobody ever disproven.

well hunny I gess mabe I will git time 2 cum 2 sea yu sumtimes, but now thaat mi dreem has reveeled 2 me a reel reesen for diggin mi shaft in2 the erth, I must git bussy on it at 1st for the bennefits of mankind, so that will keep me pretty bussy.

hopin yu r the same,

yore lovin paul

NATIONAL SERVICE IS UNEXCELLED

Complete stocks of National and IDEAL Products are carried at all stores, one of which is within easy access of your operation wherever located in the established Oil and Gas fields.

THE NATIONAL SUPPLY COMPANIES

Say you saw it in The Oil Weekly

PERFECTION VAPOR PRESSURE TANKS
WOOD, AND BOLTED STEEL TANKS

Our direct part in seeing that 1925 will be a successful year for you consists in maintaining a branch office in your district where there is always a stock of tanks to suit your needs.

FITTING NEW YEAR RESOLUTIONS

Today is the day for the inauguration of new policies.

What more fitting resolution for the average oil producer for 1925 could be than the following:

THAT in 1925 my lease tanks will all be Perfections.

THAT I'll eliminate evaporation entirely; cease paying tribute to this unseen thief.

THAT I'll increase the gravity of my crude thus insuring me greater returns for my production.

THAT I'll make my fire hazard negligible and reduce my insurance premiums to almost nothing.

THAT I'll use the Perfection Flow Tank to separate oil from the gas whenever I need lease equipment of this character, thus enabling me to save a big sum for lease fuel or perhaps enriching my purse thousands of dollars in the sale of gas to the nearest gasoline plant.

THAT I'll patronize a company whose product is made right mechanically and which is backed by a guarantee of "service" not equalled in the oil fields of the country.

And on our part we can ill afford to allow a single resolution to be regretted, since the enviable reputation we now enjoy was only gained by almost 50 years of helping oil producers on the road to success.

And it's our fond hope that 1925 will be your best year!

Black Sivalls & Bryson
INC.

BARTLESVILLE ~ OKLAHOMA

Branch offices in all principal active fields

Say you saw it in The Oil Weekly

SQUEAKS from the BULL WHEEL

Mother's Watchdog

"Madame your dog bit me on the ankle."

"He did? Oh, I must send for a doctor!"

"Oh, I assure you it isn't as bad as——"

"You're the third person he's bitten today. I just know he isn't feeling well."—Am. Legion Weekly.

Employer—How do you estimate your real value?

Applicant—Well, I've been sued for breach of promise.

"Never mind," said a man in the barber chair, "some of these days someone will invent a machine which will make it possible for a man to put it right on his head and cut his own hair."

The barber smiled.

"Yes," the customer continued, "and then they'll invent something that will shave people automatically."

"Well," the barber replied, "the plans will never work out."

"Why not?"

"People are getting so blamed lazy that after a while they'll want their shaves and haircuts called for and delivered."—Youngstown Telegram.

One on the Doctor

"An' 'ow be Lawyer Barnes doin', doctor?"

"Poor fellow! He's lying at death's door."

"There's grit for 'ee—at death's door an' still lyin'!"—London Humorist.

How Baby's Named

"What are you going to name your baby brother?"

"Bobby, after grandmother's hair."—Youngstown Telegram.

Including Grammar

Dealer—Shad are good today, madame.

Mrs. Weller—Have they, ah, roes?

Dealer—Well, madame, everything has gone up nowadays.

Daughter's Prayer

"Violet, did you say your prayers?"

"Yes, mother. And I prayed the good Lord to watch out for the two men you just hired to keep track of papa."—American Legion Weekly.

Hubby's Part

"You admit you overheard the quarrel between the defendant and his wife?"

"Yis, sor, I do."

"Tell the court, if you can, what the husband seemed to be doing."

"He seemed to be doing the listening." — Continent (Chicago.)

"Have you heard anything about a machine for telling when a man is lying?"

"Sure."

"Ever seen one?"

"Seen one? Why, I married one."—Dallas News.

Sister's Open Date

"When, dearie, are you going to allow me to show my love for you?"

"Come around Friday. That's amateur night."—Whiz Bang.

We'll Say It Is!

Hubby—You are affectionate only when you want money.

Hubby's Darling—And isn't that often enough?

Al: "That girl is an infant prodigy."

Pal: "Why so?"

Al: "I asked her whose baby she was, and she answered with a man-size blow." — Grinnell Malteaser.

She: "My fiance's birthday is next Saturday, and I want to give him a surprise."

He: "Why not tell him your right age?"—Columbia Jester.

Income Tax Official: "And is the separation from your husband an official one?"

Kate: "I dunno about 'official.' All I knows is as when 'e comes to our 'ouse we calls the police an' they chucks 'im out!" —Toronto Goblin.

Clarus: "I hear Jones is going to bore an artesian well. Pretty expensive, what?"

Opacus: "Oh, no. All he has to do is sit and talk to it and it won't cost him a cent."—Columbia Jester.

"The doctors say baldness is on the increase."

"Well, you can't drink your hair tonic and have it too!"—Judge.

"What's your little girl's name?" asked the colored parson of the lady who was enrolling her daughter in his Sunday school.

"Her name am Opium Bryant," was the reply.

"Opium? That's rather an odd name for a girl," ventured the parson. "How did you ever come to pick that name?"

"Y' see, pahson, 'twas dissaway. Dey say opium comes from wild poppy, an' so when dis chile was bohn, Ah decides to name her Opium 'cause her poppy suah am wild."—Judge.

"Come over tonight and see my new hat. My friends say that I look well in it."

"I'll be over sure. It must be a wonderful hat." — Boston Transcript.

Harry—Did you f e e l the earthquake last night?

Carrie—No, I was shimmying. —Washington Dirge.

"Why, Bob, you have a terrible black eye, did you you meet with an accident?"

"I wouldn't exactly call her that."—Harvard Lampoon.

"So your father demurred at first because he didn't want to lose you?"

"Yes; but I won his consent. I told him that he need not lose me. We could live with him, and so he would not only have me, but a son-in-law to boot."

"H'm! I don't like that last expression."—Adelaide Gossip.

A youth seated himself in a dentist's chair. He wore a wonderful shirt of striped silk and an even more w o n d e r f u l checked suit. He had a vacant stare that goes with both.

"I'm afraid to give him gas," the dentist said to his assistant.

"Why?" asked the assistant.

"Well," said the dentist, "how do I know when he is unconscious?"—Store Chat.

Waiter (to irate customer)—We aim to please.

Customer—Then I'd advise a little target practice.—Washington and Lee Mink.

You can always draw queens if you have the jack.—Lafayette Lyre.

Comfortably Housed Workmen Produce More Work

CRAIN SECTIONAL (PORTABLE) HOUSES

are cozy, cheerful, weatherproof, and easily heated. They produce that kind of housing comfort that pays for itself in more productive labor.

yet

CRAIN SECTIONAL (PORTABLE) HOUSES

actually cost less than the less efficient kind of housing. Saving in erection cost, long life, and nearly 100 per cent salvage value result in true housing economy,

The most days of service per dollar.

Write for Catalog of Plans and Prices

CRAIN READY-CUT HOUSE CO.

Crain Sectional Houses for Industrial Purposes

HOUSTON, TEXAS

Crain Ready-Cut Houses for Permanent Homes

GUIDE FOR PURCHASERS

Accountants—
F. C. Lancton

Air Compressors—
Continental Supply Company
Hope Engineering & Supply Co.
Southern Engine and Pump Co.

Air Lift Pumping Equipment—
Sullivan Machinery Co.

Attorneys—
Hirsch & Hannay
Vinson, Elkins & Wood

Balls and Seats—
Bradford Motor Works
Continental Supply Company
The Charles N. Hough Mfg. Co.

Band Wheels—
Continental Supply Company
Emsco Steel Products Co.
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.

Bell Nipples—
The Cunningham Co.

Belting—
Bridgeport Machine Company
Continental Supply Company
D. F. Connolly Agency
Frick-Reid Supply Company
International Supply Company
Oil Well Supply Company
Republic Supply Co.
Stanley Belting Corp.

Boilers—
Bridgeport Machine Co.
The Brownell Co.
D. F. Connolly Agency
Continental Supply Company
Frick-Reid Supply Co.
International Supply Co.
The National Supply Cos.
Oil Well Supply Company
Republic Supply Company
Regan Forge & Engineering Co.
Star Drilling Machine Co.
Titusville Iron Works Co.
United Iron Works, Inc.
See Oil Field Supplies and Tanks

Boiler Tubes—
The Tyler Tube & Pipe Co.

Boiler Scale Remover—
Ward Chemical Co.

Blowout Preventer—
Baash-Ross Tool Company
Cameron Iron Works
Continental Supply Company
Regan Forge & Engineering Co.

Burners—
Continental Supply Company
Gaso Pump & Burner Mfg. Co.
Gould Burner Company
Regan Forge & Engineering Co.

Bull Wheels—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.

Calf Wheels—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.

Casing—
Continental Supply Company
Regan Forge & Engineering Co.
Republic Supply Company
Superior Tube Co.

Casing Shoes—
Baker Casing Shoe Co.
Bridgeport Machine Co.
Continental Supply Company
Gulf Coast Machine & Supply Co.
The National Supply Cos.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Company
W-K-M Company

Cement Hardener—
The Sullivan Company
W-K-M Company

Cement Head—
MacClatchie Mfg. Co.

Chain Blocks—
Yale & Towne Mfg. Company

Charcoal Iron Boiler Tubes—
The Tyler Tube & Pipe Co.

Control Heads—
Continental Supply Company
Palmer Specialty Co.
Southern Brass Mfg. & Plating Co.

Core Drills—
Acme Oil & Drill Company
Elliott Core Drilling Co.
Spengler Core Drilling Co.

Compressors—
Butler Mfg. Company
Continental Supply Company
F. W. Heitmann Co.
Hope Engineering Company
Sullivan Machinery Co.
United Iron Works, Inc.

Cordage—
D. F. Connolly Agency
Continental Supply Company
The National Supply Cos.
Republic Supply Company

Crown Blocks—
American Well & Pros. Co.
Baash-Ross Tool Company
Boykin Machinery & Supply Co.
Continental Supply Company
Gulf Coast Machine & Supply Co.
International Derrick & Equipment Company
Lufkin Foundry & Machine Co.
Oil Well Supply Company
Parkersburg Rig & Reel Co.
Superior Tube Co.

Couplings—
Continental Supply Company
Harrisburg Pipe & Pipe Bending Company
A. O. Smith Corporation
Superior Tube Co.

Dehydrating Processes—
Wm S. Barnickel Co.
Petroleum Rectifying Co.

Derricks and Rigs—
International Derrick & Equipment Company
Lee C. Moore & Co.
National Turnbuckle Derrick Co.
Parkersburg Rig & Reel Co.
Peden Iron & Steel Co.
Robertson-McDonald Lumber Co.
Superior Tube Co.

Diamond Core Drills
Sullivan Machinery Co.

Disc Bits—
Continental Supply Company

Ditchers—
Buckeye Traction Ditcher Co.

Draw Works—
Continental Supply Company
Lufkin Foundry & Machine Co.

Drilling Cables—
American Cable Co.
Bridgeport Machine Co.
D. F. Connolly Agency
Continental Supply Company
Frick-Reid Supply Company
The National Supply Cos.
Peden Iron & Steel Co.
Regan Forge & Engineering Co.
Republic Supply Company
Star Drilling Machine Co.
Williamsport Wire Rope Co.

Drill Pipe Slips—
Baash-Ross Tool Company
Continental Supply Company

Drilling Machines—
Bridgeport Machine Co.
Continental Supply Company
Keystone Driller Co.
Parkersburg Rig & Reel Co.
Star Drilling Machine Co.

Drill Collars—
Baash-Ross Tool Company
Continental Supply Company

Drill Pipe Cutting—
Baash-Ross Tool Company

Drilling Tools—
Baash-Ross Tool Company
Continental Supply Company

Drill Pipe—
Continental Supply Company
Frick-Reid Supply Co.
Republic Supply Company
Reading Iron Company
Superior Tube Company

Drilling Equipment—
Baash-Ross Tool Company
Bridgeport Machine Co.
Continental Supply Company
Republic Supply Company
Star Drilling Machine Co.

Drilling Machines—
Star Drilling Machine Co.

Drive Pipe—
Continental Supply Company
Republic Supply Company
Reading Iron Co.
Superior Tube Co.

Electrical Equipment—
Westinghouse Elec. & Mfg. Co.

Elevators—
Bridgeport Machine Company
Continental Supply Company
The Cunningham Company
Dunn Mfg. Co.
Gulf Coast Machine & Supply Co.
LeBus Rotary Tool Works
Wilson & Willard Mfg. Co.

Engines, Diesel—
Western Machinery Co.

Engines, Gas—
Continental Supply Company
Frick-Reid Supply Co.
Hope Engineering & Supply Co.
The Pattin Bros. Co.
Western Machinery Co.

Engines, Oil—
Continental Supply Company
Frick-Reid Supply Co.
The Pattin Bros. Co.
Western Machinery Co.

Engines, Pumping—
Ajax Iron Works
Bessemer Gas Engine Co.
Bridgeport Machine Co.
Continental Supply Company
The Brownell Co.
De La Vergne Machine Co.
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hope Engineering Co.
Lucey Mfg. Corp.
Lufkin Foundry & Machine Co.
The National Supply Cos.
National Transit Pump & Machine Company.
Oil Well Supply Co.
Peden Iron & Steel Company
Republic Supply Company
Rock Island Plow Co.
Southern Engine & Pump Co.
Titusville Iron Works
Western Machinery Company

Engineers—
David Donoghue
Foster & Reiter
Hope Engineering & Supply Co.
Lee C. Moore & Co.
Oil Conservation Engineering Co.
D. T. Ring

Fire Protection—
Continental Supply Company
Oil Conservation Engineering Co.

Fish Tail Bits—
Continental Supply Company
Frick-Reid Supply Company
Gulf Coast Mach. & Sup. Co.
Lucey Manufacturing Corp.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
W-K-M Co.

Floor Circle Brace—
Continental Supply Company
Dunn Mfg. Co.

Fuel Oil—
Gulf Refining Company
Sinclair Refining Company

Gas Engines—
S. M. Jones Company

Gas Traps—
Continental Supply Company
Smith Separator Company
Trumble Gas Trap Co.

Gasoline Extraction Compressors—
Bessemer Gas Engine Co.
Continental Supply Company
Hope Engineering & Supply Co.
Sullivan Machinery Co.

Gasoline and Oil Storage Tanks—
Butler Mfg. Co.
Graver Corporation
Continental Supply Company
Kansas City Struct. Steel Co.
Parkersburg Rig & Reel Co.

Gauges—
Continental Supply Company
Oil Conservation Engineering Co.

Generators—
R-F Electrical Mfg. Co.

Genuine Wrought Iron Casing—
Reading Iron Co.
Superior Tube Co.

Geologists—
Alexander Deussen
David Donoghue
Edwin B. Hopkins
Foster & Reiter
Heath M. Robinson

Grips and Clamps—
Continental Supply Company
J. P. Ratigan
W-K-M Co.

Heat Exchangers—
Brown Welding & Machine Co.
Hope Engineering & Supply Co.

Hoists—
Alamo Iron Works
Emsco Steel Products Co.

Hose—
Continental Supply Company
D. F. Connolly Agency

Houses—
Crain Ready-Cut House Co.

Laboratory Equipment—
Continental Supply Company
Fort Worth Laboratories

Lapwelded Steel Boiler Tubes—
The Tyler Tube & Pipe Co.

Lighting Systems—
Bridgeport Machine Co.
Continental Supply Company
R-F Electrical Mfg. Co.
Westinghouse Elec. & Mfg. Co.

Line Pipe—
Continental Supply Company
Republic Supply Co.
Reading Iron Co.
Superior Tube Co.

Lumber—
Robertson-McDonald Lumber Co.

Manufacturers—
Robinson Packer Co.

Maps—
Heydrick Mapping Co.

Meters—
Continental Supply Company

Motors—
Twin City Company
Westinghouse Elec. & Mfg. Co.

Oil Field Supplies—
Bridgeport Machine Co.
Butler Mfg. Co.
Continental Supply Company
D. F. Connolly Agency
The Cunningham Company
Frick-Reid Supply Co.
Graver Corporation
Gulf Coast Mach. & Sup. Co.
Erle P. Halliburton
International Supply Company
Kansas City Struct. Steel Co.
Lee C. Moore & Co.
Lucey Manufacturing Corp.
The National Supply Cos.
Oil Well Supply Company
Parkersburg Rig & Reel Co.
Peden Iron & Steel Co.
Pelican Well Tool & Sup. Co.
Republic Supply Company
Regan Forge & Engineering Co.
Robinson Packer Co.
Smith Separator Company
Southern Brass Mfg. & Plating Co.
Superior Tube Co.
United Iron Works, Inc.
W-K-M Co.

GUIDE FOR PURCHASERS—Continued

Oilwell Casing—
Continental Supply Company
Frick-Reid Supply Company
Republic Supply Company
Superior Tube Co.

Oil Well Cementing—
Erle P. Halliburton

Oil Well Shooting—
U. S. Torpedo Co.

Overshots—
Baash-Ross Tool Company
Continental Supply Company
LeBus Rotary Tool Works

Packers—
Continental Supply Company
The Guiberson Corp.
Layne & Bowler
Robinson Packer Co.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Rhodes Master Packing Co.
W-K-M Co.

Packing—
Continental Supply Company
D. F. Connolly Agency
Frick-Reid Supply Co.
The National Supply Cos.
Peden Iron & Steel Co.
Pelican Well Tool & Sup. Co.
Republic Supply Company
Rhodes Master Packing Co.

Paints—
Continental Supply Company
Peden Iron & Steel Co.

Panel Boards—
Westinghouse Elec. & Mfg. Co.

Patents—
Hardway & Cathey
Jack A. Schley
Jesse R. Stone

Pipe Grips—
Continental Supply Company
W-K-M Co.

Pipe—
A. M. Byers Co.
Continental Supply Company
W. E. Detlor
Frick-Reid Supply Co.
F. W. Heitmann Co.
Harrisburg Pipe & Pipe Bending Company
International Supply Co.
The National Supply Cos.
Oil Well Supply Co.
Peden Iron & Steel Co.
Reading Iron Co.
Republic Supply Company
Superior Tube Company
Williamsport Wire Rope Co.

Pipe Screwing Machines—
Buckeye Traction Ditcher Co.
California Pipe Line Machine Co.

Pipe Tnreading Machine—
Standard Engineering Company

Pipe Wrenches—
Continental Supply Company
Dunn Mfg. Co.
The Guiberson Corp.
LeBus Rotary Tool Works
Republic Supply Company

Portable Buildings—
Butler Mfg. Co.
International Derrick & Equipment Company

Portable Compressors—
Continental Supply Company
Sullivan Machinery Co.

Portable Drilling Rigs—
Bridgeport Machinery Co.
Continental Supply Company
Lee C. Moore & Co.
Oil Well Service Co.
Parkersburg Rig & Reel Co.
The National Supply Cos.

Pulleys—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co.

Pulling Machines—
Clark Machine Co.
Continental Supply Company
Iron King Mfg. Co.
Safety Pulling Machine Co.

Pumps—
Axelson Machine Co.
Bradford Motor Works
Continental Supply Company
D. & B. Pump & Sup. Co.
Frick-Reid Supply Co.
Gaso Pump & Burner Mfg. Co.
Goulds Manufacturing Co.
Lucey Manufacturing Corp.
National Transit Pump & Mach. Co.
Oil Well Supply Co.
Pelican Well Tool & Supply Co.
Republic Supply Company
The Reschke Machine Works Co.
Southern Engine & Pump Co.
Texas Oil Pump Co.
United Iron Works, Inc.

Pumping Powers—
Continental Supply Company
Frick-Reed Supply Co.
International Supply Company
Jensen Bros. Mfg. Co.
Kansas City Hay Press Co.

Refined Products—
Gulf Refining Company
Humble Oil & Refining Co.
Sinclair Refining Co.

Recorders—
Fort Worth Laboratories

Refinery Equipment—
Butler Mfg. Co.
Continental Supply Company
Graver Corporation
Kansas City Struct. Steel Co.
Oil Conservation Engineering Co.
Republic Supply Company
Smith Separator Company
Titusville Iron Works
United Iron Works, Inc.
Wyatt Metal & Boiler Works

Refined Products—
Magnolia Petroleum Company
Texas Company

Rig Irons—
Continental Supply Company
International Supply Co.
Lee C. Moore & Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Republic Supply Company

Rotaries—
International Supply Company

Rotary Rock Bits—
Continental Supply Company
Hughes Tool Co.

Rotary Fish Tail Bits—
Continental Supply Company
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Co.
W-K-M Co.

Separators—
Butler Mfg. Co.
Continental Supply Company
Smith Separator Company
Trumble Gas Trap Co.

Structural Steel—
Butler Mfg. Co.
Kansas City Struct. Steel Co
United Iron Works, Inc.

Steel Derricks—
Continental Supply Company
Emsco Steel Products Co.
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Superior Tube Co.

Steel Crown Blocks—
Continental Supply Company
Gulf Coast Mach. & Sup. Co.
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.
Superior Tube Co.

Steel Manufacturers—
Colonial Steel Co.

Steel Storage Tanks—
Butler Mfg. Co.
Continental Supply Company
Graver Corporation

Sucker Rod Lines—
D. F. Connolly Agency
Continental Supply Company

Sucker Rod Elevators—
The Cunningham Co.

Strainers—
Continental Supply Company
Emsco Steel Products Company
Layne & Bowler Co.
J. H. McEvoy & Co.
Pelican Well Tool & Supply Co.
W-K-M Co.

Sucker Rod Hooks—
The Cunningham Co.

Sucker Rod Sockets—
Bradford Motor Works
Continental Supply Company
The Cunningham Co.
Brown Welding & Machine Co.

Sucker Rods—
Axelson Machine Co.
Columbus Sucker Rod Co.
Continental Supply Company
D. & B. Pump & Sup. Co.
Dunn Mfg. Co.
Frick-Reid Supply Co.
S. M. Jones Co.
The National Supply Cos.
Oil Well Supply Company
J. P. Ratigan
Republic Supply Company

Swabs—
Continental Supply Company
The Cunningham Co.

Tank Bolts—
Continental Supply Company

Tanks—
American Tank Co.
Butler Mfg. Co.
Black, Sivalls & Bryson
Columbian Steel Tank Co.
Continental Supply Company
The Brownell Co.
Gantz Tank Co.
Graver Corporation
Kansas City Structural Steel Co.
Maloney Tank Co.
Parkersburg Rig & Reel Co.
Petroleum Iron Works
United Iron Works
Wyatt Metal & Boiler Works

Tank Deadwood—
Robertson-McDonald Lumber Co.

Tank Equipment—
Continental Supply Company
Oil Conservation Engineering Co.

Temper Screws—
Burns Tool Co.

Thermometers—
Continental Supply Company
Fort Worth Laboratories

Timbers—
Robertson-MacDonald Lumber Co.

Tongs—
Bridgeport Machine Co.
Continental Supply Company
Dunn Mfg. Co.
Guiberson Corp.
LeBus Rotary Tool Works
Pelican Well Tool & Supply Co.
Wilson & Willard Mfg. Co.
W-K-M Co.

Tool Joints—
American Well & Pros. Co.
Baash-Ross Tool Company
Boykin Machinery & Sup. Co.
Bridgeport Machine Co.
Continental Supply Company
Emsco Steel Products Co.
Hughes Tool Co.
Pelican Well Tool & Sup. Co.
Regan Forge & Engineering Co.
Republic Supply Co.
W-K-M Co.

Tools (Fishing and Drilling)—
Bridgeport Machine Co.
Brown Welding & Machine Co.
Continental Supply Company
Frick-Reid Supply Co.
Hughes Tool Co.
International Supply Co.
Oil Well Supply Co.
Peden Iron & Steel Co.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Company
Star Drilling Machine Co.
Sullivan Machinery Co.
W-K-M Co.

Toothless Slips—
LeBus Rotary Tool Works

Tractor Winch—
Rock Island Plow Co.
Twin City Company

Traveling Blocks—
Baash-Ross Tool Company
Boykin Machinery & Sup. Co.
Continental Supply Company
Gulf Coast Machine & Sup. Co.
Lufkin Foundry & Machine Co.
Regan Forge & Engineering Co.

Tret-O-Lite—
W. S. Barnickel & Co.

Tubing Catcher—
Continental Supply Company
D an Mfg. Co.
Guiberson Corp.

Tubing Lines—
Continental Supply Company
D. F. Connolly Agency

Tubing—
Continental Supply Company
Republic Supply Company
Reading Iron Co.
Superior Tube Co.

Underreamers—
Bridgeport Machine Co.
Continental Supply Company
Wilson & Willard Mfg. Co.

Vacuum Pumps—
Continental Supply Company
Sullivan Machinery Co.

Valves—
Bradford Motor Works
Continental Supply Company
Darling Valve & Mfg. Co.
The Charles N. Hough Mfg. Co.
Texas Oil Pump Co.
Ludlow Valve Mfg. Co.
Oil Conservation Engineering Co.
The Wm. Powell Co.
Pratt & Cady
Reading Steel Casting Co.
Reading Valve & Fittings Co.
Smith Separator Company
Sour Lake Machine Co.
Southern Brass Mfg. & Plating Co.
Westcott Valve Mfg. Co.
W-K-M Co.

Valves and Fittings—
Continental Supply Company
Darling Valve & Mfg. Co.
D. & B. Pump & Sup. Co.
Ludlow Valve Mfg. Co.
Lufkin Foundry & Machine Co.
The National Supply Cos.
Peden Iron & Steel Co.
The Wm. Powell Company
Pittsburgh Reinforced Brazing and Machine Company
Pratt & Cady
Republic Supply Company
Reading Steel Casting Co.
Reading Valve & Fittings Co.
United Iron Works
W-K-M Co.

"Valking Beams—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.

Welding and Cutting Equipment—
Continental Supply Company

Working Barrels—
Axelson Machine Co.
Bradford Motor Works
Continental Supply Company
D. & B. Pump & Sup. Co.
Republic Supply Company
The Charles N. Hough Mfg. Co.
Southern Brass Mfg. & Plating Co.
Texas Oil Pump Co.

Water Gauges—
Continental Supply Company

Water Cans—
Continental Supply Company
H. P. Gott Mfg. Co.

Wire Rope—
American Cable Co.
Bridgeport Machine Co.
D. F. Connolly Agency
Continental Supply Company
International Supply Co.
Regan Forge & Engineering Co.
Republic Supply Company
The National Supply Cos.
Williamsport Wire Rope Co.

Franklin valveless Gas Engines and Type "S" Reversible Clutches

Well proportioned, strong, faithful, all bearings easily accessible and adjustable, fewer parts than any other engine of this type. They are built for hard work and steady service—that is why the FRANKLIN is giving such real satisfaction to its many users throughout the oil industry. With the FRANKLIN fewer repairs are necessary; your lubricant bills will be considerably lowered.

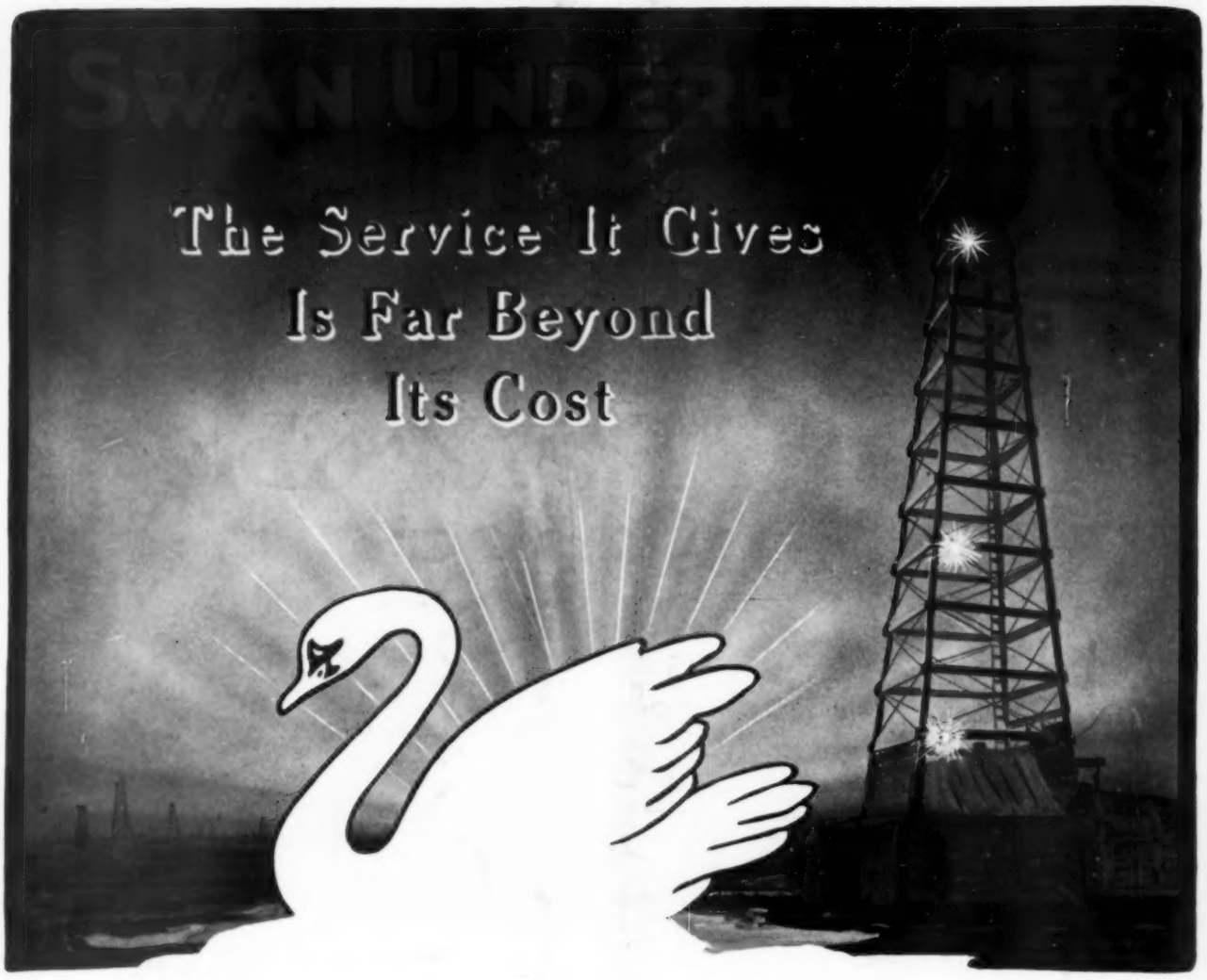
Once installed the type "S" clutch needs little or no attention. They are constructed of the best materials—the bushings are of bronze—and are reliable, self-oiling, quiet running. For oil field use there is no better type clutch than the FRANKLIN TYPE "S".

Our Bulletins go into greater details—Write for them

Distributed in Oklahoma, Kansas, Texas, Louisiana and Arkansas by: ATLAS SUPPLY COMPANY, MUSKOGEE, OKLA., and branches. Also INTERNATIONAL SUPPLY COMPANY, TULSA, OKLA., and branches.

FRANKLIN VALVELESS ENGINE COMPANY
FRANKLIN PENNA.

Distributed in West Virginia by: NEW MARTINSVILLE SUPPLY COMPANY, NEW MARTINSVILLE, W. VA.



Distributed universally for sale or rent by the Continental Supply Co., Leidecker Tool Co., International Supply Co., Drillers Supply Co., Farley Machine Works Co., and the Bridgeport Branches. :: :: :: ::

THE
BRIDGEPORT
MACHINE COMPANY

General Offices & Works — WICHITA, KANSAS